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ABSTRACT

This one of a series of studies on the training, recruitment, and utilization of teachers in member countries of the Organization for Economic Cooperation and Development. This volume deals with Austria, Greece and Sweden. The section on Austria (134 pages) has chapters on the demand and supply of teachers from 1950 to 1965; teacher legislation and the school reform of 1962; the demand for teachers from 1965 to 1975; teacher training in Austria; teacher shortages and teacher recruitment, salaries, career prospects, working conditions, and social position; future teacher supply; teachers in the framework of all highly skilled personnel; and teacher productivity. The section on Greece (122 pages) is in French with no translation. The chapters deal with factors influencing the supply and demand, the training of teachers, the recruitment of teachers, career opportunities and working conditions and methods of increasing the "productivity" of the teacher. The section on Sweden (140 pages) has chapters on the demand and supply of teachers, allocation of manpower to the educational sector, teacher training policies, recruitment policies, career possibilities and conditions of work, and improvement of teaching. Related documents are SP 005 358 through SP 005 361 and SP 005 363 and SP 005 364. (MBM)

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FORMATION, RECRUTEMENT
ET UTILISATION DES ENSEIGNANTS

TRAINING, RECRUITMENT
AND UTILISATION OF TEACHERS

MONOGRAPHIES NATIONALES

COUNTRY CASE-STUDIES

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L'Organisation de Coopération et de Développement Économiques a été instituée par une Convention signée le 14 décembre 1960, à Paris, par les membres de l'Organisation Européenne de Coopération Économique, ainsi que par le Canada et les États-Unis. Aux termes de cette Convention, l'O.C.D.E. a pour objectif de promouvoir des politiques visant :

- *à réaliser la plus forte expansion possible de l'économie et de l'emploi et une progression du niveau de vie dans les pays Membres, tout en maintenant la stabilité financière, et contribuer ainsi au développement de l'économie mondiale ;*
- *à contribuer à une saine expansion économique dans les pays Membres, ainsi que non membres, en voie de développement économique ;*
- *à contribuer à l'expansion du commerce mondial sur une base multilatérale et non discriminatoire, conformément aux obligations internationales.*

La personnalité juridique que possédait l'Organisation Européenne de Coopération Économique se continue dans l'O.C.D.E., dont la création a pris effet le 30 septembre 1961.

Les membres de l'O.C.D.E. sont : la République fédérale d'Allemagne, l'Autriche, la Belgique, le Canada, le Danemark, l'Espagne, les États-Unis, la France, la Grèce, l'Irlande, l'Islande, l'Italie, le Japon, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni, la Suède, la Suisse et la Turquie.

The Organisation for Economic Co-operation and Development was set up under a Convention signed in Paris on 14th December 1960 by the Member countries of the Organisation for European Economic Co-operation and by Canada and the United States. This Convention provides that the O.E.C.D. shall promote policies designed:

- *to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the world economy;*
- *to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development;*
- *to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.*

The legal personality possessed by the Organisation for European Economic Co-operation continues in the O.E.C.D. which came into being on 30th September 1961.

The members of O.E.C.D. are Austria, Belgium, Canada, Denmark, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

Afin de faire le point sur la situation du corps enseignant au niveau de l'enseignement primaire et secondaire tant sur le plan quantitatif que sur le plan qualitatif, dans les années récentes et dans le futur, le Comité du Personnel Scientifique et Technique de l'OCDE a décidé d'entreprendre une étude de synthèse reposant sur des données de base recueillies dans un certain nombre de pays Membres de l'OCDE et consignées dans des monographies nationales. Cette série de monographies nationales est publiée en plusieurs volumes par les soins de l'Organisation.

In order to take stock of the current and future teacher situation in primary and secondary education, both in quantitative and qualitative terms, the Committee for Scientific and Technical Personnel of OECD decided to prepare a general report on this subject which would synthesise the data gathered in a certain number of OECD Member countries and which are presented in a series of country case-studies. This series of case-studies is published by the Organisation in several volumes.

AUSTRIA

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Note:

The main sources of the tables are the OECD Report "Educational Planning and Economic Growth in Austria 1965-1975", the preliminary teacher data publications which the planning team of Federal Ministry of Education in Vienna issued while preparing the OECD Report, the Annual Austrian School Statistics (Österreichische Schulstatistik) which are published since 1951/52, the Teilheft zum Bundesvoranschlag für das Jahr 1964, Gruppe X, Vienna 1964, the same for the year 1966, and finally the Österreichischer Bildungsbericht 1965, published by the Federal Ministry of Education, Vienna. Some use has been made of data which are not yet published.

PREFACE

The programmes of the O.E.C.D. Committee for Scientific and Technical Personnel have given considerable attention to the problems connected with the demand for and supply of teachers as a vital element in the quantitative and qualitative development of the educational system. The quest for an equilibrium between supply and demand calls for the implementation of specific training, recruitment and utilisation policies in what is one of the most important sectors of highly qualified manpower.

Questions concerning the demand for and supply of teachers arose in several studies carried out by the O.E.C.D. particularly in connection with a) general studies on scientific and technical personnel in O.E.C.D. countries, b) general policy and planning in the field of education in Member countries, c) the recruitment and training of mathematics and science teachers.

In order to take stock of the current and future teacher situation in primary and secondary education, both from a quantitative and qualitative point of view, the Committee requested the Secretariat to prepare a general policy report on this question which would be based on the experience and data put together for a number of O.E.C.D. countries in the form of individual country case-studies.

The present report represents the Austrian contribution to the series of case-studies on the training, recruitment and utilisation of teachers in primary and secondary education. It has been prepared by the Secretariat, Dr. S. Wald, Consultant to the Directorate for Scientific Affairs, being responsible for the work.

The report is based mainly on material contained in the study, "Erziehungsplanung und Wirtschaftswachstum in Osterreich 1965 - 1975", prepared by the Planning Bureau of the Austrian Ministry of Education as part of the O.E.C.D. Educational Investment and Planning programme. This material was supplemented by additional information collected by the Secretariat from various other Austrian sources.

CHAPTER I

DEMAND AND SUPPLY OF TEACHERS FROM 1950 to 1965

1. Introduction

During recent years Austria has been suffering from teacher shortages which are a matter of growing concern to the Austrian authorities. A study of the teacher situation in Austria reveals how often a surplus or shortage of teachers can change into the contrary, and, therefore, how important it has become to formulate a long-range teacher policy. As far as the planning of teachers for the future is concerned, Austria has just started on an excellent basis: the report which the Austrian planning team completed in 1967 gives very detailed figures and a clear policy guideline until 1975.(1) The present teacher study relies often upon this report.

In July 1962, Austria adopted nine new school laws which were characterised as its most important school reform since one hundred years ago. These laws were not directly linked to the teacher shortage of that time, but they changed, among many other things, the traditional training of compulsory school teachers, and they will have far-reaching effects on the whole teacher situation.

2. Primary Teachers 1950-1965

(a) Definitions and past trends

The term "primary education" comprises three different types of school: General Primary, Upper Primary and Special Schools (Volkschulen, Hauptschulen and Sonderschulen). General primary schools last eight years, all subjects are taught by one teacher, except religion and arts and crafts. The first four years of the general primary school are common for all pupils afterwards, children with the necessary qualifications can change into the upper primary school (Hauptschule). This type of school, however, does not exist everywhere, especially not in the countryside; the upper primary school lasts four years, from the 5th to the 8th grade, and the teaching is done by different subject teachers. The Special Schools, finally, comprise the eight grades of compulsory schooling. Their curriculum is designed for physically or mentally handicapped children.(1)

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(1) Educational Planning and Economic Growth in Austria, 1965-1975. O.E.C.D. Project.

The teachers of these three types of school have the same basic education, moreover, general primary teachers can, if they fulfil certain conditions become upper primary or special school teachers. For statistical and planning purposes, the three teacher groups are generally added together.

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(1) The law of 1962 added a ninth compulsory school year, the "polytechnical" year, to the traditional eight year course of the primary schools.

Table 1: Primary Teachers 1951-52 - 1965-66

Year	Total, Public and Private, Including Religion and Arts and Crafts Teachers	Total, Public and Private, excluding Religion and Arts and Crafts Teachers	Index of Column 2	Female Teachers in Column 2, Total Number	Female Teachers in Column 2, Percentage.
	1	2	3	4	5
1951/52	35,825	28,461	100	...	...
1962/53	32,639	28,646	101	15,387	53.7
1953/54	35,581	28,533	100	15,246	53.4
1954/55	35,177	28,224	99	15,115	53.6
1955/56	34,335	27,579	97	14,833	53.8
1956/57	33,520	26,958	95	14,547	54.0
1958/58	32,639	26,254	92	14,269	54.3
1958/59	32,586	26,286	92	14,358	54.6
1959/60	32,934	26,575	93	14,584	54.9
1960/61	33,232	26,919	95	14,936	55.5
1961/62	33,382	27,075	95	15,165	56.0
1962/63	33,577	27,325	96	15,372	56.3
1963/64	34,192	27,783	98	15,723	56.6
1964/65	34,955	28,301	99	16,093	56.7
1965/66	35,769	28,905	102	16,480	57.0

In order to understand Table 1, one should notice that primary teacher planning in Austria focuses upon Column 2, and does not take into account the religion and arts and crafts teachers. Their supply did not create serious problems. The calculations and arguments in this report will generally be based upon the more limited primary teacher notion of Column 2.

The numbers of Column 2 indicate the teachers on the official payroll of the Ministry of Education, however, they do not indicate, at least not for the last year, how many teachers were actually teaching in the classroom. Their number has not been made public, but it is possible to calculate its approximate value.

In 1965/66, for example, the payroll shows 28,905 primary teachers. This figure must first be reduced by about 3 per cent: the teacher-reserve which has to replace temporarily such teachers. The remaining 28,000 teachers must next be reduced by another 1,200 to 1,400 units. This number, which is still an estimate, indicates the teachers which the Ministry has temporarily relieved from the teaching service (mainly for health reasons), though they continue to receive their normal payment. The Austrian law permits such relief for teachers who are politically active in the central or in a federal or local government. Thus, the number is reduced to about 26,700 actually teaching. To compare this figure with the number of teacher positions which have to be filled, a third reduction is necessary: nearly 700 of these 26,700 teachers are additional teachers, employed and paid by the City of Vienna, in order to increase the quality of education in Vienna. There were in 1965, therefore, about 26,000 primary teachers who had to fill about 29,000 teacher positions. It is important to keep these details in mind: the official statistics publish the number of salaried teachers (in 1965: 28,905), but the planners can only calculate and forecast the number of teacher positions to be filled (in 1965: about 29,000). Of course, a simple comparison of these two figures does not yield the teacher gap, which, in 1965 amounted to about 3,000 primary teachers. (cf. Chapter V)

(b) Underlying historical factors

The number of primary teachers remained remarkably constant through the last 15 years. It has decreased slightly since 1953, reached its lowest point in 1958 and attained, in 1965, again the 1951 mark. This movement followed closely the changes in the number of primary school pupils. Table 2 illustrates that the number of pupils also went down after 1951, reached its lowest point in 1958 and approached the 1951 mark again in 1965. Though the number of primary teachers depended completely upon the number of enrolled pupils, the variations in the number of teachers were less pronounced than the variations in the number of pupils. Changes in the total pupil population are, to a certain extent, absorbed by increases or decreases in the class size. Class size changes alone do not yet influence the total number of teachers.

Table 2: Total Number of Pupils Enrolled in Primary Schools

Year	Number 1	Index 2	Index of Primary Teachers, cf. Table2(3) 3
1951/52	856,554	100	100
....	....	...	...
1955/56	764,217	89	97
1956/57	747,793	87	95
1957/58	735,333	86	92
1958/59	725,020	85	92
1959/60	733,940	86	93
1960/61	744,211	87	95
1961/62	742,132	87	95
1962/63	747,125	87	96
1963/64	758,196	89	98
1964/65	772,574	90	99
1965/66	794,387	93	102

The variations in the number of pupils were due to very pronounced variations of the relevant age groups. Live births were low during the thirties, they increased considerably after Austria's annexation by Germany in 1938 and remained high during the first war years, a few live birth figures give some idea of this change:

1937 86,351 = 100
1938 93,812 = 109
1939 137,825 = 159
1940 145,926 = 169

This sudden increased resulted in high enrolments at primary schools in the late forties and early fifties. After the war, the birth rate slowed down and remained low between 1950 and 1954, reaching its deepest point in 1951 (102,764 live births). This trend is visible in the decreasing pupil and teacher figures of the late fifties. Since 1955, live births are again increasing every year: this change is responsible for the pupil and teacher increases since about 1963.

Migration did not influence the total teacher number in a noteworthy way. Thus, the birth rate trend was reflected by the primary teacher trend, but the variations of the latter were small compared with the very abrupt birth rate changes. The reason is that these abrupt changes did not influence so much the the total number of primary pupils, because the resulting big or small enrolment groups always overlapped for some years with earlier and later enrolment groups of a different size. Moreover, the flexibility of the class sizes absorbed a part of the enrolment changes.

(c) Internal structure of the primary teacher force

Finally, the internal structure of the compulsory teacher force deserves some remarks.

Table 1 (columns 4 and 5) gives the number of female teachers. The percentages show a trend which grew with an almost puzzling regularity. It will probably reach the 60 per cent mark soon. One of the reasons for this internationally known development is, certainly, that the primary teacher career is, from a financial point of view, every year less attractive to young men. However, the proportion of female teachers is not the same in all types of primary schools. In 1964, it was 62.5 per cent in general primary schools, 46 per cent in upper primary schools and 62.4 per cent in special schools. It also varies between the federal provinces.

The number of primary teachers teaching in private schools has not influenced the general development since 1951. Their percentage is low and remains very constant for the whole period, as the following figures show:

	Primary Teachers in private schools	Percent of all primary teachers
1951/52	1,012	3.6
1955/56	1,018	3.7
1960/61	940	3.5
1965/66	992	3.4

The distribution of teachers between general primary, upper primary and special schools has not changed much in the last decade either. The following Table 3 presents the figures for 1965/66.

Table 3: General Primary, Upper Primary and Special Schools 1965/66.

	Pupils		Teachers	
	Number	Per cent	Number	Per cent
General Primary Schools	570,137	72.0	18,109	62.6
Upper Primary Schools	202,016	25.2	9,142	31.6
Special Schools	22,234	2.8	1,654	5.7
Total Primary Schools	794,387	100	28,905	100

The distribution of primary teachers does not fully correspond to that of primary pupils, as far as the breakdown into the three main types of school is concerned. The biases which Table 3 reveals stem from different pupil/teacher ratios. Upper primary schools, where teaching is done by subject teachers require more teachers for a given number of pupils than general primary schools. The special schools for handicapped children need, in their turn, more teachers than upper primary schools. The pupil/teacher ratios which the law would like to introduce are:

1 : 30 for general primary schools
1 : 20 for upper primary schools
1 : 15 for special schools (average)

3. General Secondary Teachers 1950-1965

(a) Definitions and past trends

Pupils who successfully complete the 4th grade of the general primary school, can opt for a general secondary school (instead of continuing the general primary or continuing into an upper primary school). In this case, they have to pass an entrance examination. It is, moreover, possible to change from a later grade in upper primary into general secondary school.

General secondary schools (Allgemeinbildende höhere Schulen) are gymnasia or grammar schools which last nine years. At the end, the pupils have to pass the graduation examination (Reifeprüfung) which gives access to the university. General secondary schools are, thus, designed to lead to higher education, although pupils can leave at the end of compulsory school age.

Though there are different types of general secondary schools, the teachers can be treated as a unity, because most of them have the same educational background.

Table 4 shows their numerical development. Teachers in teacher training colleges - the former Lehrerbildungsanstalten - are not included, although these colleges also end with a graduation examination leading to higher education. A larger proportion of these teachers, however, have followed a primary and not a secondary teacher background. Moreover, teachers in private secondary general schools are not included either, because their exact number is not known.

Table 4: General Secondary School Teachers (excluding Teachers in Teacher Training Colleges) Public Schools only.

Year	Total Number	Index	Female Teachers	Per cent of total
1951/52	3,896	100	...	...
1952/53	4,401	113	1,207	30.9
1953/54	4,209	108	...	...
1954/55	4,631	119	...	...
1955/56	4,640	119	1,479	35.9
1956/57	4,855	125	...	...
1957/58	5,069	130	...	...
1958/59	5,161	132	...	...
1959/60	5,275	135	...	...
1960/61	5,336	137	1,817	34
1961/62	5,419	139	...	...
1962/63	5,169	133	...	...
1963/64	5,671	146	...	...
1964/65	6,025	155	...	...
1965/66	6,185	159	2,298	37.1

(b) Underlying historical factors

In the same period where the number of primary teachers remained almost constant, general secondary teachers increased their number by more than a half. The proportion of female teachers was lower than in primary education but it showed also an increase.

The rapid growth of the secondary teacher force is due to the rising individual demand for non-compulsory education. This drive for more and better education is clearly visible in Table 5. Since about 1953/54 the percentages of the relevant age-groups which enrolled in the lower level of the gymnasia started to outnumber by far the percentages which were usual before. In about 1957/58, this wave reached the upper level of the gymnasia. In 1960, 7.25 per cent of all 17-year old Austrians attended gymnasia, compared with 2.91 per cent in 1955. However, this rising individual demand for education did not lead to a linear growth of the teacher force. Table 6 compares the increases of pupils and teachers between 1951 and 1965: first, one could think that the two movements were not too different, pupils increased from 100 to 146, teachers from 100 to 159 (index I).

Table 5: Percentage of Age-Groups enrolled in General Secondary Schools.

	Age	Year			
		1950/51	1955/56	1960/61	1965/66
Compulsory Lower Level	10	8.3	13.6	10.3	12.41
	11	8.9	14.4	12.8	14.76
	12	9.7	13.9	12.4	14.12
	13	8.46	9.73	11.97	14.18
	14	5.87	7.23	10.12	12.29
Above Compulsory; Upper Level	15	5.24	5.57	8.97	11.15
	16	4.39	4.59	8.69	10.48
	17	3.54	2.91	7.25	8.95
	18	1.00	1.08	1.60	3.07
	19	0.27	0.27	0.56	0.91

Table 6: Pupils and Teachers in General Secondary Schools leading to Higher Education (Pupils in Teacher Training Colleges "Lehrarbildungsanstalten" included, but excluding Teachers in Teacher Training Colleges)

Year	Pupils			Teachers		
	Number	Index I	Index II	Number	Index I	Index II
1951/52	65,664	100		3,896	100	
1955/56	84,593	129	100	4,640	119	100
1960/61	88,811	135	105	5,336	137	115
1965/66	96,147	146	114	6,185	159	133

However, this impression is fallacious. With the help of Index II in Table 6, two different periods become visible. From 1950/51 to 1955, the number of pupils increased quickly (from 100 to 129), while the teacher increase (from 100 to 119) lagged behind. Since 1955, this trend has been reversed: the increase of pupils has slowed down (from 100 to 114), but the teacher number has grown rapidly (from 100 to 133).

At least two reasons must be mentioned to explain this development. First, it was not possible to eliminate a statistical inaccuracy. In fact, the real number of general secondary teachers increased by some per cent less than Table 6 suggests. Since 1962, the Federal Government pays a certain number of private general secondary teachers, who appear, therefore, in the official teacher statistics. This is done in accordance with the treaty between the Holy See and the Austrian Republic from the 25th July 1962. These private teachers, however, taught already before 1962 but their number was unknown and they were not recorded statistically. But this concerns only a few hundred teachers and does, therefore, not explain the diverging development of the pupil and teacher trends since 1951. The age-composition of the grammar school pupils played a more important role, because pupil/teacher ratios are higher in the lower level, and smaller in the upper level of general secondary education. It is true that the total number of secondary school pupils increased considerably from 1950 to 1955 (cf. Table 6), but their bulk, before 1955, was still in the lower grades. The number of classes increased, but class-sizes increased also. Thus, the total teacher number did not have to increase by the same rate as the total pupil number. After 1955, this group of pupils entered the upper level of the general secondary schools, however, they were reduced because many pupils had dropped out or left for other schools (transferred to other schools) in the meantime. Thus, the average size of the upper classes was smaller, but the number of classes remained about the same, and the number of teachers could not be reduced, probably on the contrary, the diversification of the upper level curriculum, and the increase in teaching hours required more teachers. At the same time, the inflow of pupils into the first grades did not decrease, but remained high as in the years after 1950. This explains why the teacher number increased since 1955 more than the pupil number.

4. Vocational Teachers 1950-1965

(a) Compulsory vocational teachers

Vocational education consists in Austria, as in all other developed countries, of a multitude of full and part-time schools, and other training centres at all levels of education. The composition of the vocational teacher force is, therefore, very heterogeneous.

Vocational education is compulsory for all apprentices on a one day per week (day-release) basis. It lasts during the whole apprenticeship period and goes hand in hand with the practical vocational training.

Generally, compulsory vocational teachers are part-time teachers who leave another main profession. Their number remained very stable since 1950, as the following figures show:

1950/51 3,501 = 100
1955/56 4,221 = 120
1960/61 3,930 = 112
1964/65 3,939 = 112

The number of compulsory vocational teachers depends upon the number of apprentices which the economy is willing or capable to absorb. Since the number of apprentices remained at nearly the same level since the early fifties, the teacher number did not change very much. This explains also why the Ministry of Education did not plan any numerical targets for this type of teacher. It is, however, anticipated that the future teacher-policy will have to focus on these teachers as well, because they have made clear that they are not satisfied with their situation.

(b) Intermediate and secondary vocational teachers: Definitions, past trends and underlying historical factors

The teachers which this and the following chapters are investigating all belong to the intermediate and secondary (full-time) school categories. Above this level, there is one type of vocational school which requires from applicants the graduation diploma from a secondary general or vocational school, the "Lehranstalt für gehobene Sozialberufe". This school, as well as the teacher training schools, is not included here.

Intermediate vocational schools do not lead to the university, while secondary vocational schools end with the same graduation examination as secondary general schools, thus, they give access to higher education. Although this difference is vital, it is not yet possible to distinguish statistically the teachers in these two types of school because in many cases they are linked together (see school organisation!). Hence, the term, secondary vocational teachers, will always embrace the teachers in intermediate vocational schools as well. Moreover, secondary vocational teachers do not have a uniform educational background (cf. Chapter IV, 4). Courses in intermediate and secondary vocational schools last from one to five years.

Vocational teachers are heterogeneous not only with regard to the schools where they are employed, but also with regard to the schools where they have graduated. However, the teacher statistics treat them as a unity, and so do the planning forecasts.

Secondary vocational teachers are normally being broken down into three main subject groups:

- i) Teachers in technical, trade and arts and crafts schools;
- ii) Teachers in commercial and business schools;
- iii) Teachers in schools for home economics and other female occupation.

Table 7 compares the development of the number of all secondary vocational teachers with the development of the pupil numbers since 1951.

Table 7: Pupils and Teachers in Secondary Vocational Schools

Year	Pupils			Teachers		
	Number	Index I	Index II	Number	Index I	Index II
1951/52	24,031	100		3,056	100	
1955/56	42,211	176	100	3,862	127	100
1960/61	43,480	181	103	4,913	161	128
1965/66	42,717	178	101	5,508	180	143

The total number of secondary vocational teachers is very near to the number of secondary general teachers, but their respective relations to the pupil numbers developed very differently since 1951.

As in secondary general education, the number of secondary vocational pupils increased considerably between 1950 and 1955. Since 1955, however, this number remained almost unchanged. The teacher numbers did not follow this trend, at least not since 1955. The teacher index, though increasing between 1951 and 1955, lagged first behind the pupil index (cf. Table 7, Index I). Since 1955 teachers increased even more, from 100 to 143 (Index II), while pupils remained at a level of about 100. This contradiction has no parallel in primary or secondary general education and demands an explanation. Probably, statistical errors play a minor role here also. It is possible that double counting has increased in the last years, especially of part-time teachers who teach at the same time in several vocational schools. The most important reason, however, lies somewhere else. In fact, the pupil numbers did not increase since 1955 because the vocational schools were, materially, always operating at full capacity. School houses, workshops and school laboratories simply could not absorb more pupils, because they could not expand in order to keep in step with the demand for education. Every year, until now, pupils who applied to secondary vocational schools had to be refused because there was no place for them. In the same period, however, the vocational, especially the technical curricula, have been diversified. The number of specialised subjects which had to be taught by competent teachers was increasing, irrespective of the number of available classrooms and laboratories. This led to the remarkable increase in the number of vocational teachers during the last decade. Of course, these teachers could have educated more pupils, if they had had the necessary material facilities at their disposal. Thus, the industrial development of Austria progressed faster than the corresponding educational structure.

(c) Internal structure of the intermediate and secondary vocational teacher force

Table 8 breaks the teacher totals down, and this breakdown is once again regrouped and simplified in Tables 9 and 10. Table 9 almost suggests that the internal composition of the vocational teacher force remained the same since 1951. Part-time teachers numbered always between 20 and 22 per cent of all vocational teachers, female teachers always between 40 and 43 per cent, and technical, trade and arts and crafts teachers always about 41 per cent of the total. Only home economics teachers decreased, while the proportion of commercial and business school teachers increased.

Table 10, however, shows some of the diverging trends which are hidden behind these average figures. In technical, trade and arts and crafts schools, the number of female and part-time teachers is very small, but their proportions are increasing which indicates that the recruitment of competent teachers is becoming more difficult. In commercial and business schools, female and part-time teachers play a much greater role, and the share of part-time teachers within the total is increasing. In schools for home economics and other female occupations, the overwhelming majority of the teachers are women. Their proportion remained almost unchanged since 1951, while the share of part-time teachers decreased continuously.

Table 8: Secondary Vocational Teachers, Public and Private, broken down into 3 main Subject Groups, Full-time and Part-time, and Male and Female Teachers.

Year	Technical, Trade and Arts and Crafts Schools				Commercial and Business Schools				Schools for Home Economics and other Female Occupations			
	Full time		Part time		Full time		Part time		Full time		Part time	
	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
1951/52	1,155	45	111	10	473	187	162	56	784	728	371	248
1955/56	1,446	56	119	11	713	303	278	91	947	888	359	242
1960/61	1,874	105	211	23	896	415	394	148	1,159	1,064	379	223
1965/66	2,064	127	315	35	958	453	559	183	1,248	1,131	364	186

Table 9: Secondary Vocational Teachers, by Main Groups

Year	Total		Full time		Part time		Male		Female		Technical Trade, Arts and Crafts Schools		Commercial and Business Schools		Home Economics and other female occupations	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1951/52	3,056	100	2,412	79	644	21	1,727	57	1,329	43	1,266	41	635	21	1,155	38
1955/56	3,862	100	3,102	80	756	20	2,271	59	1,591	41	1,565	41	991	26	1,306	34
1960/61	4,913	100	3,929	80	984	20	2,935	60	1,978	40	2,085	42	1,290	26	1,538	31
1965/66	5,508	100	4,270	78	1,238	22	3,231	59	2,277	41	2,379	41	1,517	28	1,612	29

Table 10: Secondary Vocational Teachers, Part-time and Female Teachers as percentage of total, by Main Subject Groups.

Year	Technical, Trade, Arts and Crafts Schools			Commercial and Business Schools			Home Economics and other Female Occupations		
	Total No.	Part time teachers in %	Female teachers in %	Total No.	Part time teachers in %	Female teachers in %	Total No.	Part time teachers in %	Female Teachers in %
1951/52	1,266	9	4	635	26	38	1,155	32	85
1955/56	1,565	8	4	991	28	40	1,306	28	87
1960/61	2,085	10	6	1,290	31	44	1,538	25	84
1965/66	2,379	13	7	1,517	37	42	1,612	23	82

CHAPTER II

TEACHER LEGISLATION AND THE SCHOOL REFORM OF 1962

1. The School Laws of 1962

From the end of the Second World War until 1962, vehement discussions on the school structure were being held in Austria. The most important teacher law of this period is the Lehrer-Dienstzweigeverordnung. This decree dates back to 1958 and is being continuously readjusted since then. It establishes the rules for the teacher appointments in the different levels and branches of education, specifying the necessary qualifications for every case.

But it was only in 1962 that the school discussions led to a major break-through in Austrian school history. In 1962, the Parliament passed a group of nine laws which were, since at least a century ago, the most important school reforms in Austria (25th July 1962). Therefore, one calls 1962 the School Reform Year.

The laws of 1962 have the following names:

Bundesverfassungsgesetz BGBL Nr 215 (18th July 1962, changing the school paragraphs of the federal constitution)
Bundes-Schulaufsichtsgesetz (school administration and supervision)
Schulpflichtgesetz (definition and extension of compulsory schooling)
Schulorganisationsgesetz (school organisation, changes in the structure of the school system, teacher training)
Vertragzwischen dem Heiligen Stuhl und der Republik Osterreich zur Regelung von mit dem Schulwesen zusammenhängenden Fragen (treaty between the Holy See and the Republic of Austria regarding school problems)
Religionsunterrichtsgesetz-Novelle (the teaching of religion)

Privatschulgesetz (rights and duties of private, that is to say, mainly religious schools, public subventions)

Landeslehrer-Dienstrechtsüberleitungsgesetz 1962
(the laws on the employment of teachers)

Bundesgesetz über einen Beitrag des Bundes zur Errichtung des evangelischen Schulwesens im Burgenland
(public subventions for creating protestant schools in Burgenland)

Of course, the details of these laws cannot be repeated here, but the main points which changed the structure and outlook of Austrian education can be summarized into five groups:

(a) The administration and supervision of the schools

The federal structure of Austria makes the legislation in school matters and the administration of schools a complicated and touchy task. In fact, the distribution of the school competences between the Federation and the nine different Provinces (Länder) was not settled before 1962. The school legislation of 1962 was a subtle compromise: it was federal and it, therefore, applied to all provinces, but it left them enough competences in school matters to satisfy their susceptibility. According to this compromise, the school legislation is in most cases a federal matter, but the provinces are normally responsible for the carrying out of the federal legislation and for the issuing of additional laws which make the application of the federal laws possible. For example, there is only one federal law on the employment of compulsory teachers, who, moreover, are paid by the Federation as well, but the nine provincial governments actually employ and dismiss the compulsory teachers and not the Federal Ministry in Vienna. Of course, there are many exceptions to this rule. For example, the Federation is in charge of the whole university education, including the appointment of teachers.

As far as the supervision of the schools is concerned, the School Reform brought about a democratisation of the school boards. In the past, the members of the school boards have been chosen mainly from the local government, the civil service, the teacher force and the Church. In the future, the school boards will be divided into members with advisory functions (for example, the representatives of the Church) and members who are entitled to make decisions. The members who take the decisions will come from the political parties in the different provinces, according to their parliamentary strength.

(b) Definition and Extension of compulsory schooling

The most important law in this respect is the prolongation of compulsory schooling from eight to nine years. All pupils who do not pass to secondary or full vocational education after completing eight years of primary education will have to attend a 9th compulsory school year. This 9th year has been called "polytechnical course" (Polytechnischer Lehrgang) because it will lay much emphasis on practical and technical disciplines. This year is a kind of bridge between the traditional school and the professional life; it postpones the apprenticeship age from 14 to 15 years. One considered this postponement necessary in view of the increasing difficulty of the vocational education and of the stress of the professional life.

(c) School organisation and changes in the school structure

The School Reform changed many details of the school organisation. For example, all public schools will be free of charge. A ceiling for the class size of every type of school has been fixed. It will be possible - to a greater extent as before 1962 - to break down classes in upper primary schools into different streams (Klassenzüge) according to the performance of the pupils. A new type of grammar school has been created, the Musisch-Pädagogische Realgymnasien. The curriculum of many schools has been reformed.

But the most noteworthy change in the school structure was the abolition of barriers which blocked, in the past, the transition from one school branch into another. The legislation of 1962 wanted to create bridges within the school structure, thus, making the school system more democratic and unitarian. It is very important that successful pupils in upper primary schools (Hauptschulen) will in the future be allowed to pass into the next higher classes of grammar schools without special examination. It should be anticipated that the upper primary schools run parallel with the first cycle of the secondary or grammar schools, they are attended by the 10 to 15 year-olds. The school reform will, therefore, broaden the way to higher education.

(d) School and Church

Several laws of 1962 clarified and settled the relations between the Austrian Republic and the Catholic and Protestant Churches. Most important was the treaty between the Holy See and the Austrian Republic, which focussed on the teaching of religion in Austrian schools and on the payment of the teachers in private Catholic schools. As far as the first point is concerned, the teaching of religion will be compulsory for all catholic pupils in public schools. As to the teachers in private Catholic schools, the State will pay for 60 per cent of the necessary teacher posts.

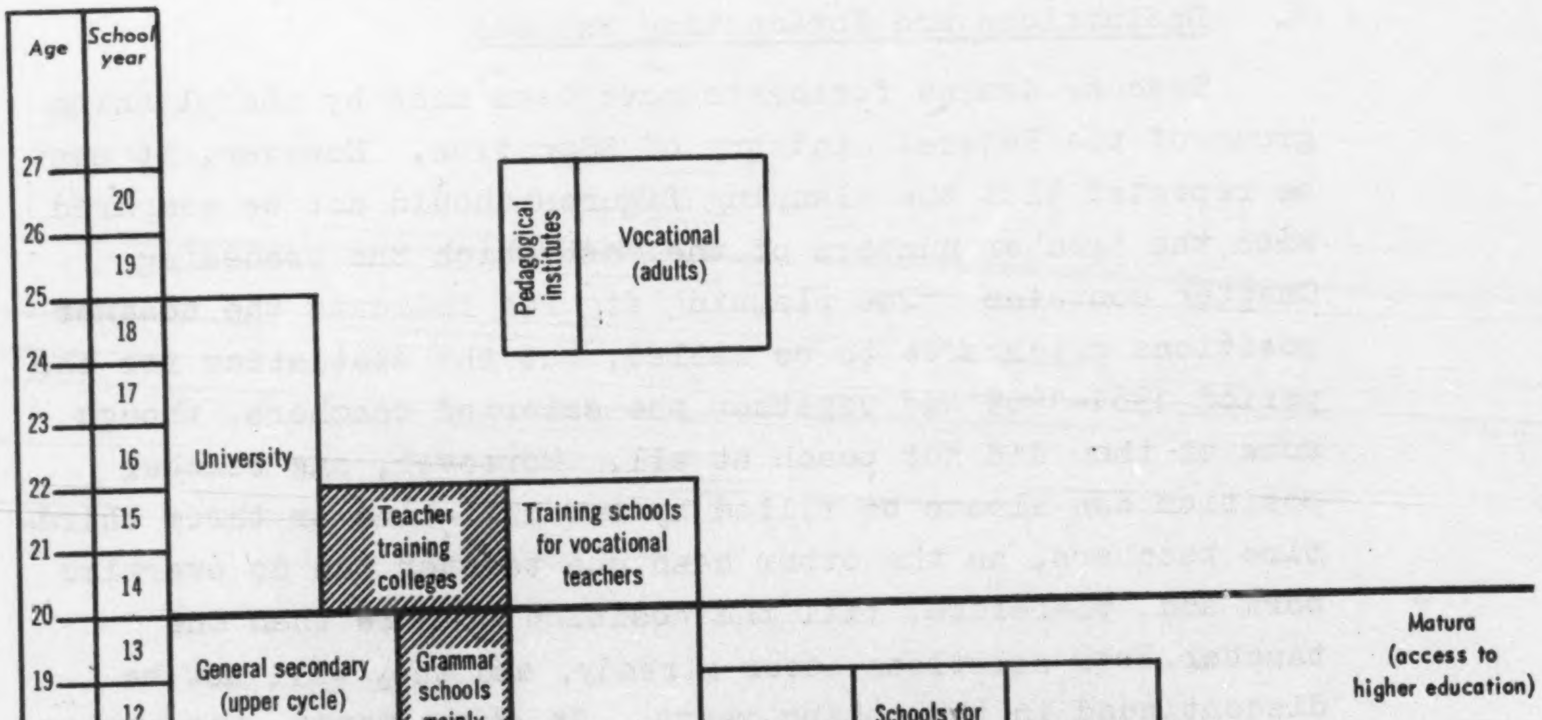
(e) Teacher training and teacher employment laws

Finally, the School Reform of 1962 changed considerably the teacher training and the teacher employment laws. The "Schulorganisationsgesetz" reduced the training of compulsory school teachers from five to two years, but postponed it after the completion of secondary education (19th year of age). Chapter IV (1) will elaborate on this. The Landeslehrer-DienstrechtsÜberleitungsgesetz unified the employment laws for compulsory teachers. This will be discussed in Chapter VI.

2. The Austrian School System after 1962 (Diagram)

The following diagram shows in simplified form the Austrian school structure after the School Reform of 1962. Hatched fields mark the main new types of school: the ninth school year of polytechnic course following the extension of compulsory schooling from eight to nine years, the Musisch-Pädagogische Realgymnasien (grammar school mainly for future teachers) and the post-secondary teacher training colleges which replace the former secondary five-year training schools for teachers. The arrows indicate the new possibilities of transition from upper primary to general secondary education. It was, of course, not possible to show all qualitative changes which the School Reform has brought about. For further details see: "Educational Planning and Economic Growth in Austria 1965-1975", Chapter 1.

AUSTRIA'S SCHOOL STRUCTURE AFTER THE SCHOOL REFORM OF 1962


Age
School year
27
26
25
24
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17
16
15
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13
12
11
10
9
8
7
20
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16
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14
13
12
11
10
9
8
7
6
5
4
3
2
1
Pedagogical institutes
Vocational (adults)
University
Teacher training colleges
Training schools for vocational teachers
Matura (access to higher education)
General secondary (upper cycle)
6 Grammar school types
Grammar schools mainly for future teachers (upper cycle only)
Secondary vocational
Intermediate vocational
Schools for kindergarten, for handicraft teachers, education assistants
Compulsory vocational
Polytechnical course
End of compulsory school age
General secondary (lower cycle)
3 Grammar school types
Upper primary (Hauptschule)
Upper cycle
Special schools
General primary : lower cycle (Volksschule)
Kindergarten

NOTE. The hatched areas indicate additions to the school system after the school reform of 1962.

CHAPTER III

DEMAND FOR TEACHERS 1965-1975

1. Definitions and Forecasting Methods

Teacher demand forecasts have been made by the planning group of the Federal Ministry of Education. However, it must be repeated that the planning figures should not be compared with the teacher numbers of the past which the preceding Chapter contains. The planning figures indicate the teacher positions which have to be filled, but the statistics for the period 1951-1965 add together the salaried teachers, though some of them did not teach at all. Moreover, one teacher position can always be filled by two half-time or three third-time teachers, on the other hand one teacher can do overtime work and, therefore, fill the position of more than one teacher. Both solutions occur already, and they will not be discontinued in the coming years. In other words, the number of teachers who will actually teach in the coming decade might just correspond with the number of planned teacher positions. However, this would be an ideal case, but neither a necessary nor a likely one.

Annex I describes how the teacher demand until 1975 has been forecast. Some steps of this calculation are anticipated already here. The total number of new teachers, which Austria will need in the period from 1965 to 1975 resulted from the following addition:

a) The basis of the calculation is the target teacher number for 1965, in other words, the number of teacher positions which should be filled in 1965. The present teacher shortage is, therefore, taken into account. To this target number have been added the three following figures:

b) The replacement demand for teachers who will reach the retirement age between 1965 and 1975, minus the number of teachers who will not retire upon reaching the age limit; (mostly in private schools).

c) The wastage rate of teachers between 1965 and 1975, due to death, temporary retirement, absence, resignation or promotion (for primary and secondary general teachers, this figure was calculated on the basis of the real teacher number of 1965);

d) The expansion demand for teachers who will be required as a result of the following developments:
   (i) increasing school enrolments due to increasing age-groups,
   (ii) extension of compulsory schooling from eight to nine years,
   (iii) rising individual demand for education; this is closely connected with the supply of more and diversified educational facilities, for example, the creation of new types of schools and the prolongation of non-compulsory schooling,
   (iv) possible reduction of the teaching load (number of teaching hours per week), and reduction of the maximum number of pupils per class.

All these points have been qualified. They led to demand forecasts for primary, secondary general and secondary vocational teachers, the latter being directed into three main subject groups.

For all three levels, three possible variations have been calculated, because the retirement age of the teachers could not be predicted exactly. The teachers can stay on until they reach the 65 years age limit, but the law allows them to retire already at the age of 60. In view of the present teacher shortages, the Ministry of Education does not want too many teachers retiring at the age of 60. Some teachers retire early. Therefore, the first forecast assumes that all teachers will retire at the age of 60, the second assumes that only every second teacher will make use of this possibility, the third forecast finally takes it for granted that no teacher will retire before completing his 65th year of age.

This report gives only the second forecast (Variant B), because it is the most likely one. Moreover, the final results of the three forecasts do not differ very much.

Tables 11, 12 and 13 show the teacher demand between 1965 and 1975. For Table 13, the three groups of secondary vocational teachers are added together.

2. Implications of the Teacher Forecast

Only a comparison with the past reveals what these figures imply. Table 14 compares the teacher numbers in the last decade with the number of projected teacher positions in the coming decade. The index numbers demonstrate that Austria is indeed at the threshold of an educational revolution: the increase in the number of teachers which will be necessary in the next ten years is of a different magnitude than the teacher increases which one observed in the last ten years. Primary teachers, who stayed almost at the same level for ten years, will have to increase by about 44 per cent. Contrary to the primary teachers, the number of general secondary teachers increased already in the last decade, but the forthcoming increase should be three times as great. The number of general secondary teachers should almost be doubled until 1975.

Only secondary vocational teachers will follow a trend which does not differ very much from the trend of the last few years: their number increased already between 1955 and 1965 from 100 to 143; the increase which is planned for the next 10 years will raise their number by about 56 per cent.

It is important to notice that on the primary level, the main effort should be concentrated between 1965 and 1970. The teacher increase after 1970 will be much smaller than the increase which is required until 1970. However, the contrary applies to general secondary teachers, as Table 14 illustrates. On the secondary general level, the main teacher increase, and perhaps the main difficulties, will come after 1975, and not between 1965 and 1970.

On the secondary vocational level, the teacher increases will be more regular; they will be a little greater after 1970 than before.

Table 11: Demand for General Subject Teachers in Public and Private General Primary, Upper Primary and Special Schools 1965-1975, Variant B (from 1966-67 including the Polytechnic Course).

Calculated Teacher Target (Number of Teacher Positions to be filled)		Teacher Demand for Five Year Periods					Average Total Need per Year
		Period	Replacement	Wastage	Expansion	Total	
1964/65	29,000[(1)]						
1969/70	35,000	1965-70	2,300	2,600	6,000	10,900	2,180
1974/75	37,300	1970-75	2,700	2,950	1,800	7,450	1,490

(1) The teacher target figure for 1964/65 includes the unfilled vacancies.

(Source: "Educational Planning and Economic Growth in Austria 1965-1975")

Table 12: Demand for Teachers in Public and Private General Secondary Schools leading to Higher Education 1965-1975, Variant B.

Calculated Teacher Force Target (Number of teacher positions to be filled in) for 3 target years		Teacher Demand for Five Year Periods					Average Total Need per Year
		Period	Replacement	Wastage	Expansion	Total	
1964/65	7,430						
1969/70	9,563	1965-70	931	356	2,133	3,420	680
1974/75	13,617	1970-75	1,117	347	4,054	5,518	1,100

Source: as for Table 11.

Table 13: Demand for Teachers in Public and Private Intermediate and Secondary Technical and Vocational Schools, 1965-1975, Variant B.

Calculated Teacher Target (Number of Teacher Positions to be filled)		Teacher Demand for Five Year Periods					Average Total Need per Year
		Period	Replacement	Wastage	Expansion	Total	
1964/65	5,200						
1969/70	6,064	1965-70	620	450	864	1,934	400
1974/75	7,778	1970-75	639	553	1,714	2,906	580

Source: As for Table 11

Table 14: Number of Teachers for 1955-1965 and Number of Teacher Positions planned for 1965-1975

No. of Teachers	Primary, Upper Primary, Special Schools		General Secondary Schools (incl. teacher training schools)		Intermediate and Secondary Technical and Vocational Schools	
	Number	Index	Number	Index	Number	Index
1955	27,579	100	5,462	100	3,862	100
1960	26,919	98	6,270	115	4,913	128
1965	28,905	109	7,195	132	5,508	143
No. of Teacher Positions						
1965(1)	26,000	100	7,000	100	5,000	100
1970	35,000	135	9,563	137	6,064	121
1975	37,300	144	13,617	195	7,778	156

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(1) The numbers of teacher positions which should be filled in 1965 have been reduced by the teacher shortages reported for that year. This is a crude calculation, but it permits one to have an approximate idea of how the teacher numbers will have to increase in the next decade. The teacher force positions for 1965 given in this Table do, therefore, not correspond with the figures in Tables 11, 12 and 13.

The difference between teacher numbers and teacher positions is explained in Chapter I.

3. Changes in the Internal Structure of the teacher force

Table 15 illustrates, finally, the changes which occured in the internal structure of the teacher force, and those which should take place until 1975. These changes show again the educational revolution in Austria. Since 1951, the numerical relation between primary and secondary teachers is changing. These changes are quite regular and appear to go in the same direction: secondary general and vocational education become in comparison with primary education, more and more important. This is a consequence and a source of the industrial progress of the last 15 years; the manpower requirements of Austria's growing economy as well as the rising individual demand for education increase the importance of the non-compulsory school levels and the demand for secondary teachers. This trend will continue; in 1951, secondary teachers amounted to 21 per cent of the teacher total composed by primary and secondary teachers; in 1975, they will be 36 per cent.

Table 15: Internal Structure of the Austrian Teacher Force 1951-1975.

Year	Total Number of Primary, General Secondary and Intermediate and Secondary Technical and Vocational Teachers.	Percentage Distribution		
		Primary teachers	General Secondary teachers	Technical and Vocational teachers
1951	36,222	79	13	8
1955	36,903	75	15	10
1960	38,102	71	16	13
1965	41,608	69	17	13
1970	50,627	69	19	11
1975	58,695	64	23	13

CHAPTER IV

TEACHER TRAINING IN AUSTRIA

1. Primary Teacher Training

(a) Definitions and past trends

All primary and special school teachers in Austria have to attend the same teacher training schools. Additional examinations are requested from upper primary and special school teachers, but the basic diploma is the same for all general compulsory teachers.[1] The law regarding the general diploma is strictly enforced and there are, therefore, practically no "unqualified teachers", that is to say no general compulsory teachers without corresponding diplomas. From the point of view of the training, general compulsory teachers can be treated as a homogeneous group. Table 16 illustrates the inflow, enrolments and output of teacher training schools for general compulsory teachers.

The figures for the early fifties show fairly stable inflows and enrolments and a decreasing output. This trend changed after 1955/56 and inflow, enrolment and output rates almost tripled until 1965/66. The figures of the early fifties do not reflect a lack of interest for the teaching profession, but the government policy which tried to keep inflow, enrolments and output low. It should be remembered that Austria, in these years, still suffered from a teacher surplus, and the competent authorities discouraged young people from trying a career which seemed hopeless at that time. After 1956, the danger of forthcoming teacher shortages was recognized and the government policy changed accordingly. The increase of the figures between 1955 and 1965 gives evidence of the attraction which the teacher profession exerted in this period. These increases are the more amazing if one compares them with the changes in the relevant age-groups. The indices in Table 17 reveal that the growing inflows and total enrolments were recruited from decreasing age-groups, in other words, the proportion of pupils in a given age-group who wanted to become teachers was increasing considerably. The same does not hold true for outputs, because the number of the 19 year-olds increased from 1955 to 1960. Table 17 shows, moreover, that the relation between enrolments and outputs remained stable during the whole period, due to the compulsory five year course of the teacher training schools which forced every pupil to stay the same time in school

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[1] All that is said here and in the following pages applies to general subject teachers, who form the overwhelming majority of the primary and special school teachers. Different and sometimes additional diplomas are required from teachers of special subjects, like religion, music, stenography and typing, home economics, arts and crafts and drawing. The Lehrerdienstzweigeverordnung has set down the many details regarding these special subject teachers. They are left aside in this report.

The number of teachers in teacher training colleges moved less rapidly than the pupil numbers, as the following figures suggest (they include full and part-time teachers as well as the teachers in the practice schools which are attached to the teacher training colleges).

1951/52 : 809
1955/56 : 802
1960/61 : 934
1965/66 : 1,302

Only in the early sixties, a substantial increase in the number of teachers for teacher training colleges became urgent.

Table 16: Inflow, Enrolments and output of Teacher Training Schools.

Year	Inflow		Enrolments		Output	
	Number	Index	Number	Index	Number	Index
1951/52	823	100	4,030	100	892	100
1955/56	962	117	4,012	100	626	70
1960/61	1,439	175	5,496	137	859	96
1965/66	2,596	315	10,229	254	1,598	179

Inflow: First classes of teacher training schools and of the grammar schools mainly for future teachers (Musisch-Pädagogische Realgymnasien)

Enrolments: Teacher training schools, grammar schools mainly for future teachers and teaching courses for secondary school leavers (Maturandenlehrgänge)

Output: Teacher training schools and teaching courses for secondary school leavers.

Source: "Educational Planning and Economic Growth in Austria 1965-1975"

Table 17: Inflow, Enrolments and Output compared with Total Numbers in Relevant Age-Groups (Indices)

	Inflow	14-year olds	Enrolments	11-year and 14-18 year olds	Outputs	19-year olds
1955/56	100	100	100	100	100	100
1960/61	150	70	137	93	137	156
1965/66	270	73	255	93	255	110

Source: as for Table 16

(b) Primary teacher training before the school reform of 1962

As already said before, the School Organisation Act of 1962 provided for a radical change in the training of compulsory school teachers.

The traditional teacher training schools, separated for males and females (Lehrerbildungsanstalten and Lehrerinnenbildungsanstalten), have been introduced by the basic school law of 1869 (Reichsvolhsschulgesetz). Their last classes will run out at the end of 1967, the last teaching courses for secondary school leavers (Maturandenlehrgänge) at the end of 1969. They will be replaced by the "Pädagogische Akademien" - teacher training colleges.

The traditional teacher training schools lasted five (originally four) years. Pupils entered at the age of 14, after completing compulsory education. They left, if they succeeded, with a special form of Matura: a diploma which entitled them to teach and which gave them the right to apply to the university as well like all other grammar school graduation diplomas. After two years of practice, the teachers had to pass a second, this time definite examination. The curriculum of the teacher training school was a grammar school curriculum, with latin and a fair number of mathematics and science courses, but it embraced moreover compulsory lessons in the theory and practice of teaching ("Pädagogik" and "Schulpraxis"), and in the last class - one hour of "school hygiene". Together, these lessons were quite a heavy burden, they amounted to two weekly hours in the third class, to eight hours in the fourth and to 11 hours in the final fifth class. The other subjects added up to an average of about 30 weekly hours, partly depending upon the number of non-compulsory courses which a pupil was attending.

This system had shortcomings which some Austrian teachers and educationalists criticised for a long time. For example, pupils had to opt for the teacher profession at a very early age; of course, none were forced to take up teaching after graduation, since they could always enrol at the university, but then, they had wasted their efforts by attending 8 and 11 weekly hours of teaching preparation which finally were of no use to them. Moreover, pupils between 15 and 19 were rarely mature enough to prepare for such a responsible job.

The old system was, in addition to this, incapable of responding quickly to unexpected changes in the teacher demand, because the "gestation period" for a new teacher lasted 5 years. It is always difficult to forecast the demand for teachers for 5 years later, because the labour market situation for teachers could change within this period. But once a pupil had enrolled at a teacher training school, he was supposed to stay and to complete the 5 year cycle irrespective of changing labour market conditions. The longer the training period, the more difficult it is to balance teacher demand and supply.

(c) Primary Teacher Training after the School Reform of 1962

Arguments on how to improve the system have been exchanged in public since, at least, 1945. Finally, the two main parties formulated two opposing proposals: the Socialist Party of Austria wanted to abolish the teacher training schools and to train the future primary teachers at the university, after their grammer school graduation. This would certainly have levelled up the prestige of the primary teachers. The oppositional Austrian People's Party (Oesterreichische Volkspartei) preferred a more traditional solution. It suggested keeping the Teacher Training Schools, but to add another year to them, thus prolonging the teacher training to 6 years. This would have eased the burden of the combined secondary school and teacher education which the pupils had to bear at the same time.

The teacher training paragraphs of the School Organisation Act of 1962 (§ 118 - 124) were a compromise which the Catholic Church helped to formulate and which endorsed neither of the two proposals. Today, the Act is supported by both parties as well as by the public opinion.

The 31 old teacher training schools, of which 17 are private, will, until 1968, be tranformed into a new grammar school type (Musisch-Pädagogisches Realgymnasium). By this time, the Federal government will establish "Pädagogische Akademien" or Teacher Training Colleges in each of Austria's nine federal provinces. Private institutions, for example, the Church, are entitled to establish their own Teacher Training Colleges, which will adhere to the same rules as the public colleges. The Matura, or grammar school graduation, is required for admission to these colleges, and courses will last 4 terms or two years. At the end of these two years, the pupils will leave to pass a teaching examination (Lehramtsprüfung), only valuable for teaching at primary schools.

The Federal Ministry of Education will maintain the public colleges, and supervise the private ones. The federal provinces will appoint advisory boards (Kuratorien) for their respective Teacher Training Colleges. These boards will closely collaborate with the Federal Ministry of Education in Vienna. In addition to being responsible for the daily administration of the Colleges, they will be entitled to propose the teachers and directors.

Thus far, the more radical proposals of the Socialist Party have been included in the new law: the old teacher training schools have to be abolished and a new school type, based upon grammar school graduation, will replace them. But, and this point is very important, the new school has no university status and the primary teacher training does not count as "higher" education, in spite of the flattering name "Akademie" which has been given to the new colleges. They are intermediary schools, placed between secondary and higher education; however, they are on a higher level than the old Teacher Training Schools, because they require already the Matura from the pupils who want to enrol. This certainly will benefit the prestige of future primary teachers.

The advantages of the new system are manifest. The young people who opt from now on for the teaching profession will be about 19 years old: this is an age where they can reasonably be expected to know what they want. This did not apply to the old teacher training schools. The reduction of the teacher training from five to two years will make it much easier to bring the supply of graduates in accordance with the changing teacher demand. Moreover, the primary teacher training will benefit from the decision to keep it independent from the university. The teaching in the new colleges will take place in an intimate atmosphere, permitting close contacts between pupils and teachers. Such contacts are less frequent in the rather anonymous university atmosphere. The size of the Teacher Training Colleges will, of course, favour this community atmosphere. It is planned that the smaller Teacher Training Colleges will have places for about 150 students, middle sized colleges for about 250 students and the large colleges for 400 and more students.

The curriculum of the Teacher Training Colleges has not been fixed definitely, but the School Organisation Act has set down its structure. The Federal Ministry of Education has already published a tentative curriculum. It is likely to be adopted in its main lines, though it is still liable to minor changes. This tentative curriculum must remain flexible to a certain extent, because every federal province can apply changes which it desires in view of its particular traditions. Table 18 shows the curriculum in a simplified form. The proposed teacher preparation differs considerably from the education of the old teacher training schools, at least in three ways. First, the secondary and the vocational education, which the traditional teacher training curriculum had united, are now separated. The new curriculum has no scientific disciplines beyond educational theory. It focusses on teacher preparation only and does not lead to any other outlet than teaching, which cannot be said of the old Teacher Training School Matura. Second, the number of hours which are devoted to practical and theoretical teaching preparation increases considerably. The teacher training, becomes therefore more solid. This is necessary because one expects for the future a quite heterogeneous composition of the teacher candidates. One hopes, as a matter of fact, that an increasing number of working class children will attend the Teacher Training Colleges.

Table 18: Tentative Curriculum for Teacher Training Colleges

Disciplines	Number of weekly hours per half year term			
	1st	2nd	3rd	4th
Theory				
Theory of Education	7	7	7	5
Psychology of Education, Sociology of Education	3	3	3	3
Teaching Pactice				
School Visits, Exercises, Methods of Teaching, etc.	10-11	9-12	9-11	8
Arts and Crafts, Music, Gymnastics	9	11-13	7	7
Other Disciplines				
Geographical Exercises, Biological Exercises, etc.	3	3	5	3
Total	32-33	33-38	31-33	26

Third, finally, the curriculum shifts its emphasis towards teaching practice. The main courses in the theory of education existed already in the old curriculum. Only the psychology and sociology courses are new, as far as theory is concerned. But the old curriculum did not have time enough for an extensive practical preparation of the teacher candidates. This led often to a gap between the educational theories which the teachers had absorbed in school and their own practical experiences later in life. The curriculum should therefore, create a close interaction between theoretical and practical teacher training. This is the more important as the second teaching examination which the graduates had to pass after two years of practice will be abolished. The law (School Organisation Act § 119(3) says that "An exercise school shall be integrated into each teacher training college". This school must comprise general primary, if possible even upper primary classes. It has been calculated that the small teacher training colleges of 150 students would require about 20 primary classes for exercises. The big colleges of 400 students about 50 to 60 classes. It is not sure at all whether the necessary class rooms will be available for this until 1968.

Problems which have not been settled yet are the educational requirements for the teachers of the future Teacher Training Colleges. A decree on this remains to be issued. For the moment, the competent people agree that these teachers shall have a higher level of education than their predecessors at the old teacher training schools, who were partly primary teachers. On the other hand, it follows from all that has been said above that the teachers of the new teacher training colleges will normally not be university professors, since the colleges do not have a higher education status. This, of c course, will not preclude university professors from teaching on request, some special courses, but the bulk of the new teachers will have to be found elsewhere. It has been suggested employing mainly experienced primary teachers who acquired university degrees as well, a teacher category the status of which would be slightly above grammar school teachers.

It will not be too difficult to find the necessary number of competent people for the teacher training colleges in Vienna, unfortunately, the same does not apply to the provinces. For the moment, the Federal Ministry of Education organises already retraining courses in order to prepare teachers for the future teacher training colleges. Several "Pedagogical Weeks" have been held in different Austrian cities in order to explain new educational research results. Altogether, it can be said that the preparation of the new teacher training colleges proceeds normally. In 1968 and 1969 most, if not all, teacher training colleges will start their work according to the law. The government plans 9 public, the Catholic Church 5 private teacher training colleges. Difficulties might arise, due to a lack of material facilities. One fears, as a matter of fact, that not all buildings will be ready by 1968.

In the meantime, the Ministry of Education is carrying out what the Austrian law calls "school experiments" (Schulversuche, cf. School Organisation Courses Act para 7). This is done in the framework of the Teaching Courses for secondary school leavers mentioned below. A class of grammar school graduates who want to become teachers is passing, on a tentative basis, through a two-year course of the type which is planned for the Teacher Training Colleges. The practical experience with this course will help to fix definitely the curriculum as well as other details of the future colleges. Thus far, this school experiment has satisfied the educational authorities and convinced them that they took the right steps in changing the primary teacher education.

(d) Teaching courses for secondary school leavers (Maturantenlehrgänge)

Grammar school graduates could always enrol in the fifth class of the old teacher training schools in order to undergo a concentrated teacher training of one year. Applications increased in 1959/60, and the government decided in 1962 to extend this possibility into a new type of teacher training, limited, however, until 1969. It soon became clear that the transition from the old teacher training schools to the new teacher training colleges would not be possible without some provisional bridge. While the traditional teacher training schools will soon cease to work - the number of new graduates will decrease rapidly from 1966 to 1969 - the first teachers from the new colleges will graduate only in 1970. Special Training Courses for secondary school leavers (Maturantenlehrgänge) now close this gap which would have aggravated the teacher shortage. The training courses last in the provinces one year, in Vienna two years. The Ministry of Education formulated a curriculum which is quite similar to that of the new teacher training college. It embraces almost 30 weekly hours of teaching preparation, of which eight are devoted to practical exercises. At the end of the course, the students have to pass an examination. The number of graduates increased considerably in the last years, as the following figures show:

1960: 80
1961: 147
1962: 307
1963: 334
1964: 450
1965: 610

The similarity between these courses and the planned courses of the teacher training college permits the government to test the efficiency of the new teacher training laws.

2. The Grammar Schools mainly for Future Teachers (Musisch-Pädagogische Realgymnasien).

The School Organisation Act of 1962 created a new type of general secondary schools leading to higher education: the "Musisch-Pädagogisches Realgymnasium", somewhat arbitrarily translated as "Grammar School mainly for future teachers". The Act stipulates that this school "shall serve in the first place to prepare pupils for entry into the teacher training college and for social service occupations" (Para. 37 (2)).

This paragraph as well as the name of the school could be misleading: it must be stressed that the Musisch-Pädagogisches Realgymnasium does not teach pedagogics nor any other discipline which belongs to the teacher training scope. The curriculum has the normal grammar school disciplines and differs from other grammar school curricula only by the heavier emphasis which it puts on arts-and-crafts, music and drawing courses. Another peculiarity explains the aim of the new schools: they last five years like the old teacher training schools and not nine years like most other grammar schools. In other words, the pupils who enrol must have completed eight years of primary schooling or four years of secondary schooling. They can come from general primary school (Volksschule) from upper primary school (Hauptschule) or from another grammar school. Musisch-Pädagogische Realgymnasien use the buildings, material facilities and partly the teachers of the 31 old teacher training schools. The latter are, thus, gradually transformed into new grammar schools. The teacher training classes which were already running in 1962 are not concerned by this changed. The last of them will run out in 1967. But since 1963/64, all first classes in these schools start with the curriculum of the Musisch-Pädagogische Realgymnasien and not with the teacher training curriculum. In the last year, 11 additional grammar schools mainly for future teachers have been founded, increasing the total number to 42 schools, 136 classes and 4,429 pupils.

The pupils of the new schools are likely to be less homogeneous than other grammar school pupils, because a large proportion of them will enter after eight years of compulsory school. This means that in the first year, teaching has to be slower and less difficult than in the corresponding classes of other grammar schools. In the last classes, however, it will be more concentrated, because the pupils of the new schools will have to pass the same graduation as all other grammar school pupils.

The legislators hoped that an increasing number of working class and of rural children will enter t e new schools.

As a matter of fact, the Musisch-Pädagogische Realgymnasium is supposed to become the main secondary school type in the countryside. The competent authorities considered it urgent to increase the global reserve of secondary school graduates who could be channelled to the teaching profession. At the same time, they wanted to open the way into the teaching profession to all social classes, because the democratisation of educational facilities was one of the aims of 1962 school legislation. Both goals will probably be reached; but it remains an open question how many graduates of the Musisch-Pädagogische Realgymnasien will really apply to the teacher training colleges. For it must be borne in mind that the Matura of the Musisch-Pädagogische Realgymnasien is equivalent to all other grammar school graduations and enables, thus, the holder to apply to the university as well. On the other hand, the applicants to the teacher training colleges can have graduated at every grammar school type, they must not come from the Musisch-Pädagogische Realgymnasien. Beyond persuasion, the authorities have no legal way of coercing graduates from the Musisch-Pädagogische Realgymnasien to choose the teacher profession. They can only hope that many of the graduates, especially from working and rural classes, will opt for the teacher training colleges, because their courses take less time and are less difficult than university studies.

The Federal Ministry of Education carried out preliminary investigations in some classes of the newly founded schools. The results are quite satisfactory. At least until now, the overwhelming majority of the pupils answer that they intend to apply after graduation to the teacher training college.

3. General Secondary Teacher Training

(a) Definitions and past trends

Grammar school teachers are trained very differently from primary teachers. There are no links between the two training schemes. Not all, but the overwhelming majority of the teachers in grammar schools have the corresponding teaching diploma (Lehramtsprüfung für Höhere Schulen). In this, they differ from the primary teachers who have, almost without exception, the teaching diploma for primary schools. In 1963/64, the grammar school teachers of Austria had the following qualifications:

6,256 = 86.8%	Teaching Diploma for general secondary schools leading to higher education.
469 = 6.5%	Teaching Diploma for general primary, upper primary or special schools.
24 = 0.3%	Teaching Diploma for vocational schools.
456 = 6.3%	Other qualifications.
7,205 = 100%	

It must be stressed that this break-down is biased by the Musisch-Pädagogische Realgymnasien. Three hundred and fifty four of the total 469 teachers with primary and special teaching diplomas are in fact teaching at Musisch-Pädagogische Realgymnasien. If one counts only the teachers in the grammar schools which last nine years, one arrives at 92.1 per cent having the grammar school teaching diploma. Only 115 or 1.9 per cent of 5,673 teachers in this smaller group have primary and special school teaching diplomas.

Secondary teacher candidates have to attend the university, statistically, they cannot be separated from the rest of the enrolled students. There is, therefore, no possibility of measuring "inflow" and "enrolments" of secondary teacher candidates. One can only give the annual number of students who successfully passed the grammar school teacher examinations. Table 19 shows the development of these graduations, since 1953/54 and the increasing proportion of female teacher candidates. They form now a majority of the grammar school teacher graduates.

Looking for a meaningful comparison for the increase of teacher graduations, one recognizes that the method which illustrated the increase of primary teacher graduates cannot be applied here. The latter have been compared with the 19-year olds, because the overwhelming majority of them belonged to this age group. However, the age levels at which the grammar school teachers take their examinations differ very much. In 1963/64, for example, 9 per cent of all candidates passed the examinations with success at the age of 22 and 23; 26.6 per cent at the age of 24; 25 per cent at the age of 25; 11 per cent at the age of 26; 14 per cent at the age of 27, 28 and 29; 11 per cent finally between 30 and 39 years, and 4 per cent were even older than 39 years.

Therefore, the university enrolments and graduations of Austrian citizens seemed the most reasonable measure of comparison for gymnasium teacher graduations. Table 20 shows that in the late fifties, grammar school teacher graduations decreased hand in hand with total graduations of Austrian citizens; since then, they are increasing much faster than total graduations. This trend is not long enough to permit immediate conclusions. However, it is possible that the teacher shortage and the recent efforts of the government to attract new teachers incited a growing proportion of university students to opt for the teacher career.

As far as total university enrolments are concerned, there exists, at the best, only a very vague relation with teacher graduations.

Table 19: Total Number of Teacher Graduations for General Secondary Schools leading to Higher Education, (Lehrantsprüfung für Höhere Schulen), and Number of Female Graduates.

Year	Total Graduations	Females	Females in % of total
1953/54	225	-	-
1954/55	201	-	-
1955/56	174	75	43
1956/57	119	56	47
1957/58	146	75	51
1958/59	140	69	49
1959/60	148	67	45
1960/61	182	87	48
1961/62	247	127	51
1962/63	264	143	54
1963/64	357	208	58
1964/65	396	237	60

Table 20: Secondary School Teacher Graduations, Total University Graduations (Promotionen, Sponsionen and Diplomierungen, Austrian Citizens Only), and Total University Enrolments (Austrian Citizens Only).

Year	Grammar School Teacher Graduations		Total University Graduations		Total University Enrolments	
	Numbers	Index	Numbers	Index	Numbers	Index
1955/56	174	100	2,762	100	16,774	100
1956/57	119	68	2,687	97	16,724	100
1957/58	146	84	2,557	93	18,920	113
1958/59	140	80	2,469	89	22,593	135
1959/60	148	85	2,538	92	25,867	154
1960/61	182	105	2,776	101	30,009	179
1961/62	247	142	3,155	114	33,762	201
1962/63	264	152	3,446	125	37,381	223
1963/64	357	205	3,878	140	39,876	238
1964/65	396	228	4,336	157	41,128	245
1965/66	...	...	...	...	41,850	249

(b) General secondary teacher training today, and future prospects:

The education of Austrian grammar school teachers is very substantial with respect to the quantity of knowledge, and high with regard to the quality which is required. It is a university education, in most cases equivalent to any other completed university study. Most Austrian grammar school teachers acquired, as a matter of fact, a doctor's degree. The teacher examinations, which are held at the universities of Vienna, Graz and Innsbruck are difficult and demanding. The failure rates are highly suggestive in this respect. In 1963/64, for example, 581 teacher candidates went through the examinations, 357 of them succeeded, but 224 or nearly 39 per cent failed. Most of them will try their luck again.

This severity is to a large degree a hang-over of the former teacher surplus. For a long time the teacher profession was a very much desired career. This induced the competent authorities to put the examination conditions as high as possible. Moreover, they urged university students between 1950 and 1955 not to become teachers, and made it clear to them that they could not count on a job. Warnings were certainly justified in a period where secondary teachers taught three or four years without remuneration. But, unfortunately, the effects of this discouragement policy lasted too long; they are partly responsible for the shortage situation which Austria has to face now.

Thus far, the training of a grammar school teacher consisted of his professional studies, some compulsory courses in pedagogical theory and some practical exercises. For this professional education, he had to choose two main disciplines which were somehow linked, for example, mathematics and physics or he could take one main and two secondary disciplines. Later, he could teach the main discipline to all grammar school classes, but the secondary disciplines only to the first four year cycle. During his studies, he gained his practical experience by the examination, the Ministry assigned him for one year to a provisory post where he had to teach under supervision. Only after the successful completion of this probationary year, he could become permanent. Together the secondary teachers had probably less education in pedagogical theory than the primary teachers, but their practical training was quite intensive.

According to the law, the secondary teacher studies should last eight university terms or four years. In reality, the students need much more time; they study by the average 12 terms or six years. The shortage of laboratories has some responsibility for this delay, but it is not the only causal factor. The details of the university studies which the teacher candidates have to attend, fall until now under the responsibility of the university professors, in accordance with the tradition of academic freedom which the Austrian universities are still enjoying. This freedom, led to many variations between the different study fields. However, this is likely to change. In 1966, the Austrian Parliament passed a "General University Study Law" (Allgemeines Hochschulstudiengesetz) which demands concrete regulations for every study field. This law will touch the grammar school teacher training as well. Though one can expect the grammar school teacher training to be reorganised, nothing can be said definitely thus far. Discussions on this subject are being held between the Government and the universisities. Their final outcome is still in suspense, but one can at least mention the hopes and wishes which competent circles have raised. It can be assued that these wishes will have their effect on the final regulations. For example, one hopes generally that the teacher training will be concentrated and re-arranged in such a way as to permit a reduction of the study time, however, without lowering the quality of this training. In accordance with the new law, the universities should make sure that the teacher candidates can complete their studies within the legally fixed time. This is not the case today.

There are different ways to reach this goal. For example, one could ask the candidates to focus more on one of their two study fields, while certain alleviations would be permitted to them in the second field. However, this is a very preliminary and controversial proposal, because it concerns the traditional combination of the two disciplines. The new study regulations will probably bring some innovations in this field as well. Not enough is known about the most suitable combination of disciplines; but certainly one would like to avoid combinations which could impede the future teachers to find employment. Together, one can say that the renovation of the Austrian school structure which marks the 1960's has come to a final conclusion for primary teacher training but not yet for secondary teacher training. One can already forecast that the future regulations on secondary teacher training will define more precisely the range of action of the universities, which was in the past rather unlimited.

4. Training of Intermediate and Secondary Vocational Teachers

(a) Definitions and past trends

The teachers who teach in Austria's vocational schools form a very heterogeneous group, and this at all levels: in compulsory vocational schools, intermediate vocational schools without access to higher education, secondary vocational schools leading to higher education, and vocational colleges which require from applicants the Matura. Here, we consider only the teachers in intermediate and secondary vocational schools. They cannot be compared with primary or general secondary teachers, because they do not have to undergo a uniform and compulsory way of training as their colleagues.

As in Chapter I, the intermediate and secondary vocational teachers are broken down into three groups according to school category:

a) Technical, trade, arts and crafts schools;
b) Commercial and business schools;
c) Schools for home economics and other female occupations.

Table 21 shows the distribution of the teachers in intermediate and secondary vocational schools in 1964, according to their teaching qulaifications. Many of these teachers have several diplomas, although every teacher appears only once in the table. Some teachers with the grammar school teaching diploma (first column) acquired the vocational school teaching diploma as well. However, there are no holders of a vocational school teaching diploma beyond the first and second column. On the other hand, one finds in the two first columns some teachers who have in addition to their main qualification the primary teacher diploma as well. Finally, some qualified teachers in all columns have engineering or business school degrees. What strikes one first in Table 21 is the low percentage of teachers who have a specific teaching diploma for vocational schools (25.4 per cent). There are, as a matter of fact, even more teachers with the normal grammar school teaching diploma (27.2 per cent); in commercial and business schools, they form even the majority of all teachers (53.4 per cent). This shows that general non-vocational subject teaching plays a major role even in vocational schools. Moreover, one finds primary school teachers in vocational schools, though not as many as grammar school teachers. As a matter of fact, the graduates from teacher training schools (primary teachers) and the holders of the grammar school teaching diploma do not all flow to primary and grammar schools. The vocational school system employs always a part of them.

In addition to the teachers who acquired a teaching diploma, the vocational schools employ a large number of professionals who mostly had no teacher training at all. This applies especially to the group "Others". They form the largest single teacher group in the technical, trade, and arts and crafts schools (39 per cent), almost all of them are industrial foremen. Together, about 40 per cent of all teachers in the intermediate and secondary vocational schools have never passed through a formal teacher education. They had, nevertheless, some "on the job" pedagogical preparation. The Austrian Legislation on this point was flexible and tried to make sure that the necessary vocational training was provided in spite of the shortage of graduated teachers.

Table 21: Teachers in Public and Private Intermediate and Secondary Vocational Schools in 1964, according to Teaching Qualifications, in Numbers and Percentages

Teaching-Qualifications / School-Categories	Teachers with Teaching Diploma for : Grammer Schools	Teachers with Teaching Diploma for : Vocational Schools	Teachers with Teaching Diploma for : General Primary, Upper Primary Special Schools	Engineers and Higher Technicians with Diploma	Economics and Business Administration Graduates	Others	Total
Technical, Trade, Arts and Crafts Schools	469	200	37	719	39	937	2401
	19.5%	8.3%	1.5%	29.9%	1.6%	39.0%	100%
Commercial and Business Schools	682	179	50	5	237	125	1278
	53.4%	14.0%	3.9%	0.4%	18.5%	9.8%	100%
Schools for Home Economics and Other Female Occupations	261	940	140	2	23	155	1521
	17.2%	61.8%	9.2%	0.1%	1.5%	10.2%	100%
Total Intermediate and Secondary Vocational Schools	1412	1319	227	726	299	1217	5200
	27.2%	25.4%	4.4%	14.0%	5.8%	23.4%	100%

In other words, vocational teachers in Austria can come from four different origins as far as their formal schooling is concerned:

1. The university; with teaching diploma (grammar school teacher diploma) or without teaching diploma (engineers, economists, etc.)
2. Schools for vocational school teachers;
3. Teacher training schools (primary teachers);
4. Practical vocational experience, but without teaching diploma.

(b) Training of vocational teachers

This paragraph tackles the second group in the foregoing list, the schools for vocational teachers, or, in other words, the 1,319 vocational teachers of the second column in Table 21. Table 21 labels them "teachers with teaching diplomas for vocational schools". A few of them teach at commercial and business schools, they had a teaching preparation which the university provided to them according to special regulations of 1935 and 1956. A few others who teach trades or arts and crafts passed a teaching examination introduced by other special regulations. The overwhelming majority, however, 940 teachers, are employed by schools for home economics and other female occupations. They graduated from schools which had, until 1962, the name "Bildungsanstalten für Lehr für den hauswirtschaftlichen und gewerblichen Fachunterricht (training schools for teachers of home economics and trade disciplines). The School Organisation Act of 1962 added some minor changes to them and gave them a new name: Berufspädagogische Lehranstalten (training school for vocational teachers). They are the same schools as before, and their teachers are likely to remain the same as well. The Berufspädagogische Lehranstalten are Austria's only formal teacher training colleges for intermediate and secondary vocational teachers. There were until recently only three colleges of this type, all of them in Vienna. They trained teachers in home economics, male clothing manufacturing, female clothing manufacturing, underwear manufacturing and decorative embroidery.

A new, fourth training school for vocational teachers was founded in 1964, this time for teachers in technical, trade and arts and crafts schools. The number of annual graduates which these schools produced was always quite small, as the following figures show:

1951: 40
1955: 36
1960: 70
1964: 80

It is, however, planned to increase their annual number in the coming ten years to almost double. The School Organisation Act has set down curriculum and entrance requirements of the training schools for vocational teachers (Paras. 110-117). Courses last between two and four terms (1 - 2 years). The curriculum consists of three parts: some conventional secondary school subjects like religion, German, history, theory and practice of education, and finally the training in the specific vocational skills which the candidates have to teach in the future. For admission, the law requires graduation (Matura) from a secondary vocational school of the same type in which the applicant will later teach. This will lead to a feed-back of vocational teachers to their former schools. At the end of their study, the candidates have to pass an examination. Compared with the quite elaborate training schemes for primary and general secondary teachers, the formal vocational teacher training schools play a very minor role in preparing vocational teachers. This will probably remain so, at least for some time.

This is the place to mention briefly the three other types of specialised teacher training schools which exist in Austria, though they do not belong to the intermediate and secondary vocational field:

(i) Training schools for female kindergarten teachers (Bildungsanstalten für Kindergärtnerinnen). Pupils enter after eight years of primary or primary and secondary education. Training schools for female kindergarten teachers last four years, their curriculum embraces general as well as special vocational

subjects (School Organisation Act Paras. 94–101). The graduates numbered in
1951: 206
1955: 70
1960: 227
1965: 360

(ii) Training schools for educational assistants (Bildungsanstalten für Erzieher). They will be explained in Chapter IX(4).

(iii) Training schools for female handicraft teachers (Bildungsanstalten für Arbeitslehrerinnen). They have the task to train women for the teaching of home economics and handicrafts in general compulsory schools (general and upper primary schools). Table 1, column 1 showed that they form, together with religion teachers, a separated but quite important part of the total primary teacher force. The same general regulations apply as for schools for female kindergarten teachers: pupils enter after eight years of previous schooling, the courses last four years and embrace general as well as special vocational subjects (School Organisation Act Paras. 86–93). The graduates numbered in
1951: 128
1955: 57
1960: 124
1965: 110

5. Teacher Retraining in Austria

(a) Primary teachers

Austria recognized the necessity of updating and renewing the education of its teachers earlier than many other countries, It elaborated teacher retraining schemes which are among the most progressive elements of its whole school structure. These retraining schemes are independent from the teacher training schools, and courses are normally not given by the same people who are in charge of teacher training. A special school type fulfils among other things the task of retraining primary teachers: The Pedagogical Institutes (Pädagogische Institute). The first institute dates back to the end of the First World War. Today seven Pedagogical Institutes exist and two additional ones remain to be founded later. Except one, all institutes were created and organised by the provincial governments, because they are responsible for educating and employing primary teachers. The School Organisation Act of 1962 gave the Pedagogical Institutes three main tasks (Paras. 125-128):

(i) To retrain the teachers in general compulsory schools (general primary, upper primary and special schools);

(ii) To prepare general primary teachers (Volksschullehrer) for the upper primary or special school teacher examinations;

(iii) To carry out educational research.

Thus, educational research and teacher retraining are in Austria to a large extent in the hands of the same institutes and individuals. This combination had excellent results; it deserves publicity and even imitation in other countries as well. Today, the Pedagogical Institutes are Austria's most competent and productive research centres in the field of education. In the last years, they carried out more than 70 research projects covering statistical, psychological and sociological fields. Much emphasis was given to child psychology, to the problems of home surroundings and intelligence, and to the reasons of school success and failure. Most of the results are already published or are being prepared for the printer. The research workers and authors are teachers, normally with university background. All teachers can suggest research projects which they would like to carry out; the institutes are entitled to discharge them at least partly from their school obligations in order to facilitate research activities. In addition to regular publications, the institutes are organising annual "Pedagogical Weeks" where they familiarize the teachers with the most recent research results. This intimate link between retraining and research can spread new educational ideas and experiences very quickly among the teacher force.

Apart from research, the Pedagogical Institutes offer a vast choice of formal retraining courses, of regular and occasional conferences, meetings and seminars. The institute of Vienna has the most diversified and substantial programme. No other institute can compete with it. This is, besides, a general feature of Austrian education which should not be overlooked: in the quantity as well as the quality of their educational facilities, the provinces lag largely behind the capital. The Institute of Vienna announced for the winter-term 1966/67, 133 regular weekly lectures, most of them lasting two hours. The staff consisted of about 150 teachers, school directors and university professors who work part-time for the Institute. These are lectures on general subjects like history or mathematics; courses in the theory of education or in psychology, and finally practical exercises. One finds, for example, training courses for the utilisation of slide projectors, cinema projectors, and radio and television sets in the class room. A large number of primary teachers attend the Pedagogical Institutes, although their lectures are not compulsory. In the winter from 1966/67, the Institute of Vienna had more than 2,000 regular students. In addition, 2,500 - 4,000 visitors participated more or less regularly in seminars, lectures and meetings. One estimates that near to 100 per cent of all primary teachers in Vienna have at least once attended retraining courses, and perhaps 50 per cent of all primary teachers of Austria. This is a high figure, although one has to add that many of them did so not only for retraining reasons, but because they had to prepare for some additional examination. However, the retraining of primary teachers is not confined to Pedagogical Institutes alone. The federal and local school authorities organise discussion groups, seminars and regular teacher conferences for retraining purposes. Even the teacher associations are active in this field.

(b) General secondary and vocational teachers

The retraining of grammar school teachers is not institutionalised to the same extent as the retraining of primary teachers. But its necessity is fully recognised. The competent school authorities demanded in 1956 with success to broaden the retraining of secondary teachers. This retraining is mainly based on working groups for teachers of the same subject and on regular working sessions. Until 1962, conferences were normally held on a provincial level. Since 1963/64, grammar school teachers from all parts of Austria meet for national working sessions. These sessions focus on specific disciplines; they give the teachers an opportunity to contact university professors, to discuss new curricula and to become acquainted with new ideas in their respective disciplines. The federal government encourages and supports financially most retraining activities, even those which it does not control. The retraining of secondary teachers is expected to advance further in the coming years.

The School Organisation Act of 1962 states that institutes for vocational education (Berufspädagogische Institute) shall be in charge of retraining vocational teachers (Paras. 125 (2)). Two small institutes for vocational education exist already; they are still attached to two training schools for vocational teachers. Until now, the retraining of vocational teachers was concentrated in two schools, in Krieglach and Türnitz. They organised through the whole year retraining courses, for vocational teachers of all categories. Near to 7,000 vocational teachers attended in the last ten years these courses. Normally, one course lasted one week. A further expansion of retraining activities for vocational teachers would be welcome.

CHAPTER V:

TEACHER SHORTAGES AND TEACHER RECRUITMENT

1. Teacher Shortages: Historical Development and Present Situation

The present teacher shortages which Austria has to face are relatively recent. Just after the war, Austria had to put up with a very severe teacher shortage, largely because the teachers who had politically compromised themselves under the Nazi regime were dismissed. This changed soon; many of these teachers could return to their posts, but the economy recovered only slowly and the labour market did not offer jobs which could compete with teacher posts. In the early fifties, Austria suffered from a general teacher surplus which compelled the government to discourage young people from choosing the teacher career. Many teachers worked for years without salary, only to increase their chance to be hired later. After Austria had regained its independence, it introduced in 1956 compulsory military service for all young men. This already cut-back a part of the teacher reserve. The surplus situation came definitely to an end in 1958. Different structural teacher gaps appeared which have widened every year since then. This is likely to worsen in the coming years. (cf. Table 30 in Chapter VII). After 1975, the teacher shortages should decrease and by 1980, they should disappear entirely. If the general labour market situation deteriorates by this time, one cannot exclude even a new teacher surplus.

The long period of teacher surplusses has left its marks. The quality of the teacher training, the long training periods, the difficulties of the teacher examinations resulted at least partly from this surplus situation. Of course, they belonged to Austria's general academic traditions which always attributed a high moral value to formal education. But at the same time, they acted as barriers which reduced the unduly high number of applicants to the teaching profession. In the meantime, however, the situation changed and the old patterns had some difficulties to cope with 17.

In the school year 1965/66, about 3,000 of 29,000 general primary, upper primary and special teacher positions could not be filled. The gap amounted to about 11% of all primary teacher positions. For 1966/67, one estimates that between 4,000 and 5,000 primary teacher positions remained open.

At the general secondary level, more than 400 of about 6,600 teacher positions, or 6-7%, remained open in 1965. In intermediate and secondary vocational schools, more than 200 of about 4,600 teacher positions were vacant, which amounts to 4-5%.

Thus, the structure of Austria's teacher gap differs remarkably from the pattern which one is used to encountering in other European countries. Mainly, primary teachers are lacking for the time being in Austria. On the contrary, the supply of technical and vocational teachers is still satisfactory, at least compared with the supply of primary and secondary teachers.

However, it must be stressed that these shortage figures give an erroneous and unduly dramatic picture of the reality. The deficit of 3,000 primary teachers does not mean that 3,000 classes remained without teachers. Only exceptionally was it necessary to postpone the opening of new classes or to reduce the lessons in certain disciplines. Usually, the school authorities and the existing teacher force were capable of coping with the teacher gap without dramatic measures.

It is important to keep this in mind, because the future teacher gaps which Table 30 in Chapter VII will show, now appear in a more realistic light. As a matter of fact, the projected primary teacher shortages are likely to remain within the magnitude which Austria has been facing for 2 years. They will not turn into a catastrophe. In the worst case, the proportion of vacant primary teacher positions will increase to 15 or 16%, but in 1975, the shortage is likely to be the same as in 1965. The situation is different in general secondary schools. Until 1970, it might be possible to bridge the teacher gap with conventional measures. By 1975, however, a third of all secondary teacher positions will remain open if the supply of secondary teachers does not increase beyond its present trend.

Teacher shortages in Austria have never been a global problem. They are a structural problem; the teacher supply differs according to geographical region and teacher category. As a general rule, one can say that the teacher shortage increases with the distance from the big cities. Vienna, on the contrary, has a surplus of primary school teachers. Even today, several hundred primary teachers in Vienna cannot find suitable employment. This changes in the countryside, and the greatest teacher shortages are to be found in the remote border regions of Austria, specially in the North. The region of Upper Austria (Oberösterreich) faces the most difficult problems and about 1,000 primary teachers are lacking there. This is a third of the total teacher shortage of 3,000, although the primary pupils of Upper Austria form only 19% of all Austrian primary pupils.

The shortage of primary teachers is not equally distributed among all groups of this category. Austria lacks more upper primary teachers (Hauptschullehrer) than general primary teachers (Volksschullehrer). This was always the case, but the situation deteriorated after 1962, because the School Organisation Act demanded to replace the last four general primary classes by upper primary classes. In other words, the one-class teacher should after the first four years, give way to several special subject teachers, which of course, increases the total demand for primary teachers. At present, Austria lacks upper primary teachers mostly in physics, chemistry and biology.

As far as secondary teachers are concerned, the same geographical rules apply as to primary teachers. The university towns, Vienna, Graz, Innsbruck and Saltzburg do not lack grammar school teachers. The secondary teacher shortages appeared later than the primary teacher shortages, and they are not yet as big as the latter. The fact that all secondary teachers graduated in two disciplines is very helpful in this respect. It permits the school authorities to employ the teachers in the disciplines where they are most necessary. The majority of the 400 or more open posts concern teachers of scientific disciplines. In the future mathematics, especially plane and solid geometry, will be the discipline for which it will be most difficult to find enough teachers. A comprehensive inquiry on secondary teacher shortage in general and in its structural implications has been started in May 1967.

In vocational schools finally, one lacks in technical teachers. This gap, which is rather serious, has partly been closed by part-time technicians.

2. Measures to Overcome Teacher Shortages

As soon as teacher shortages appeared, the government tried to reduce them by different complementary measures. Some of them were short-term measures, others were supposed to close the teacher gap in the long run. Some failed completely, but most had at least a partial success. The following three ways of closing the teacher gap were tried without noteworthy success :

(a) Increasing the geographical mobility of primary teachers

The surplus of primary teachers in Vienna and the shortage in Upper Austria and in other regions, raises the question of the geographical mobility of teachers. As a matter of fact, the government has no legal means of coercing primary teachers to teach in a federal province other than their own. The teacher unions have long fought for this right, which is now a part of the school law ("Schuldefinitivum"). The government tried to persuade the 600 unemployed Viennese teachers to go for one year to Upper Austria, but almost all refused and preferred to wait in Vienna.

(b) Teaching beyond retirement age

The government approached some elderly teachers and asked them - without success - to stay on after retirement age.

(c) Winning back female teachers who retired after marriage

After some unsuccessful attempts in persuasion, the competent authorities concluded that the number of retired female teachers who are likely to come back to their former profession is very limited. This conclusion is disappointing in view of the continuously increasing proportion of female teachers in both the primary and secondary levels. It means that the increasing female teacher trend will add a growing element of insecurity to the future teacher supply. Accurate teacher forecasts will be more and more difficult. However, one should like to come back to this negative conclusion. More detailed enquiries into the motivations of female teachers might show which measures would reduce the number of early retirements and win back at least a part of the retired female teachers.

The number of successful measures to close the teacher gap is much greater :

(a) Overtime teaching

It is mainly due to overtime teaching ("Mehrdienstleistungen") that the teacher shortages of the last years have found a provisory solution. The amount of overtime teaching is not known in number of hours, but the salaries which the government spent for overtime teaching have been published. In 1962 for example, 0.2% of all salaries paid to general compulsory teachers were due for overtime teaching (3,162,486 of 1,567,456,152 Austrian Schillings). In the same year, 2.5% of the salaries which were accruing to general secondary teachers were paid for overtime teaching. (9,744,518 of 397,485,463 Austrian Schillings). In 1965, these percentages increased abruptly, from 0.2% to 4.8% in the case of general compulsory teachers (99,631,417 of

2,101,230,776 Austrian S¢hillings), and from 2.5% to 8% in the case of general secondary teachers (44,148,183 of 548,229,798 Austrian S¢hillings). It is not possible to draw from these figures any conclusions (detailed results from an analysis to be carried out in Autumn 1967 will be available by the beginning of 1968) on the total number of hours devoted to overtime teaching, but the sudden increase in the money which was spent is suggestive enough.

According to Austrian law, every teacher can be asked to teach until 7 hours over his normal teaching load. This legal maximum is not usually reached; most teachers teach one or two, or three hours overtime. They receive for every additional hour 6% of their salary. This makes overtime teaching at least a financially interesting affair, since the monetary value of one normal teaching hour reaches only 4 to 5.5% of the normal salary, depending upon the legal teaching load.

However, overtime teaching is still very controversial. The teacher unions are firmly opposed to it. They point to the fact that no other professional group in Austria has, on a comparative basis, such a small number of retired members as the teachers. In other words, the mortality of teachers exceeds that of other professional groups because of the numerous stresses which accompany their daily work.

But senior members of the Federal Ministry of Education affirm that the legal weekly teaching loads of Austrian teachers are not excessive at all, on the contrary. They are 18-21 hours for general secondary teachers, according to discipline, 21-24 hours for upper primary teachers and 25 hours for general primary teachers. According to these government officials, primary and secondary teachers can afford to teach overtime. One even expressed apprehensions that some teachers would try to earn money outside their teaching activities if overtime teaching were forbidde

On a purely mathematical basis, it is clear that the teacher shortages could be solved once and for ever, at least on the primary level, if the weekly teaching load would increase by 15% and the salaries, say by 30%. However, no proposal of this kind will be implemented in view of the clear refusal of the teacher unions. Therefore, overtime teaching is likely to remain a major feature of Austrian education, at least for the coming years. The overtime law is still far from being applied to all teachers to its full extent; this law can provide the government with a most important "teacher force reserve".

(b) Postponing the reduction of class sizes

The School Organisation Act of 1962 asked for a reduction of class sizes to a maximal limit. The implementing of this law would leave widened the teacher gap in the last years. To avoid this, the Austrian Parliament passed in 1965, an amendment to the law of 1962 which permits the school authorities to keep the class size for the time being as it is.

(c) Acceleration of teacher training

To speed up the teacher training is the most direct way of increasing the teacher supply. The annual and bi-annual teacher training courses for secondary school leavers which have been described above, serve this purpose. They started in 1960 and will end in 1968/69. To a similar category belong the parallel classes which the government added to the old teacher training schools. These parallel classes helped to absorb the increasing applications of teacher candidates.

As mentioned above, the training of general secondary teachers will probably be accelerated by a new university study law. This will be one of the measures to overcome the approaching secondary teacher shortage.

(d) Increasing the mobility of teachers within the teaching force

One of the school laws of 1962 (Landeslehrerdienstrechts-Uberleitungsgesetz) should help to redistribute at least a part of the teacher force according to the teacher demand. Within the general compulsory teacher force, the demand for upper primary and special teachers increases faster than the demand for general primary teachers. The law of 1962 offers to general primary teachers the opportunity to be trained for upper primary or special schools. General primary teachers are now entitled to a maximum of one year paid vacation in order to prepare for the examinations.

This increase in the structural mobility of Austrian teachers is rather exceptional. Academic traditions are strongly rooted, and the idea of a greater teacher mobility, for example leading from the primary to the secondary level, would not be accepted.

(e) Scholarships for teacher candidates

In order to remove possible financial barriers, the government increased the scholarships for pupils in the teacher training schools very generously. The relevant budget item went from 808.000 Austrian Schillings in 1960 up to 8,000.000 Austrian Schillings in 1965, almost ten times as much.

(f) Advertising for the teacher profession

The school authorities carried out advertising campaigns with the aim of increasing the attraction of the teacher profession. These campaigns seem to have made impact. They persuaded some pupils to enrol in teacher training schools.

(g) Improving the financial and general working conditions of the teacher force

Much has been done to improve the financial and general working conditions of Austrian teachers, though not enough as far as the financial conditions are concerned. More details on this problem are given in Chapter VI.

(h) Utilisation of part-time teachers

Vocational schools use a large number of part-time teachers as Tables 8-10 demonstrated This helped, in the last years the school authorities to fill vacant teacher posts in the past years.

(i) Utilisation of less qualified teachers

Austrian laws and traditions are opposed to lowering teacher qualifications or to admitting teachers to a school level which is above the one they have been trained for. This stems partly from the respect which Austrian society pays to knowledge and formal education. Therefore, the utilisation of less qualified teachers is likely to remain for a long time only a minor help to overcome teacher shortages. In the last years, some primary teachers were employed in lower secondary classes, specially in the countryside. Moreover, university students who had not yet passed their secondary teacher examinations filled a large part of the 1,600 open secondary teacher posts. Similar situations might occur in the future as well, but they will be an exception and not a rule.

A greater flexibility with regard to formal teacher qualifications exists only in the vocational field.

(j) The creation of Musisch - Padagogische Realgymnasien

Finally, one has to mention once again the Musisch - Padagogische Realgymnasien or Secondary Schools mainly for Future Teachers. By creating this new grammar school type in 1962, the Austrian government made a new step in order to provide the country in the long run with the necessary number of primary teachers. For the time being, Musisch - Padagogische Realgymnasien have been mainly created in the countryside. It has been suggested their number be increased in the cities as well.

Altogether, the Austrian government applied a multiple strategy to the teacher shortage problem, attacking symptoms and rootes as well. It was not possible to bridge the teacher gap completely, but this was less due to a lack of imagination of the school authorities than to the rigidities of Austria's laws and traditions. There is no doubt that new and perhaps more vigorous measures will have to be taken in the coming years, specially in the field of general secondary education.

CHAPTER VI

SALARIES, CAREER PROSPECTS, WORKING CONDITIONS AND SOCIAL POSITION OF AUSTRIAN TEACHERS

1. Teacher Salaries

(a) Salary Legislation

Teacher salaries are based on the salary legislation for Austrian civil servants for the year 1956. The pattern of this legislation remained unchanged until now. Teachers form thus, together with post employees and other groups of civil servants, one of the salary categories of the Austrian civil service. Their salaries increase at the same time and by the same rate as those of all other civil servants; the relationship between the teacher salaries and the salaries of the other public employees has remained stable since 1956. Salaries, of general primary teachers, rank about 5 - 6 per cent above the salary level of the lowest paid civil servants with an equivalent educational background (grammar school graduation), for example, police officers or customs employees. Salaries of secondary teachers rank about 5 - 6 per cent above the salary level of the lowest paid civil servants with an equivalent educational background (university graduation). The teachers were allocated these additional 5 - 6 per cent because they lack the same career possibilities as other civil servants. Teachers have 17 wage steps; they start from the first step and rise automatically every second year into the next higher one; they reach the top of their wage scale only after 34 years of service, in other words, when they approach the retirement age. Other civil servants can pass over certain wage steps, thus reaching the highest salary levels more easily and more quickly than teachers. Obviously, Austrian teachers rank in the wage structure only according to their small quantitative and not to their high qualitative weight. In other words, their limited number, compared with the hundreds of thousands of other civil servants, prevented them from obtaining an independant salary reglementation which would take into account their relevance for Austria's economic and political future. A shortage of police officers or of customs employees is very unlikely in the long run to endanger Austria's economic growth, but a shortage of teachers might well do so. Certainly, the wish to take the teachers out of the general salary reglementation has been raised, but the teacher unions were numerically not strong enough to fight this issue to a successful end.

(b) Development of Teacher Salaries since 1957

Table 22 gives the salaries for the primary and secondary teachers of all categories and for the first, the 10th and the 17th step in 1957, 1962 and 1967. The indices of Tables 23, 24 and 25 elucidate the proportions of this wage scale.

Table 23 shows the wage increases of all teacher categories and steps in the last ten years. However, one has to bear in mind that the total salary expenses per teacher increased a little more in the same period, mainly due to increasing expenses for overtime teaching and for other additional benefits. It appears immediately that only the first salary steps increased considerably in the last decade. These increases range from 82 per cent for secondary teachers to 95 per cent for upper primary and special teachers. The higher teacher steps lag very much behind; they obtained on the average only about half of the increase accruing to teachers in the first salary step. In the first five years of the chosen period, the salaries for the higher steps remained almost unchanged. Table 24 explains these differences in the salary increases. The salary differences between the steps within each teacher category were - and are still - very big. In 1957, secondary and upper primary teachers at the end of their career earned almost three and a half times as much as their younger colleagues who just started. This gap was reduced up to 1962: teachers in the 17th step earned about two and a half times more than the beginners. Since then, the differentials remained almost the same. As a matter of fact, the final salaries, especially of secondary teachers are quite respectable and do not lag behind the salaries which equally

qualified professionals receive in industry.
But these high salaries are not representative, because relatively few teachers have them. However, the beginning salaries were, comparatively low and they had to be raised in order to attract more young people to the teaching profession. It might be necessary to reduce the gap between starting and final salaries even more.

Table 25 finally shows the salary differentials between the different teacher categories. It appears that vocational teachers, whether compulsory (L_2B) or secondary (L_1), are comparatively better paid than general teachers. They belong to the two highest salary categories. This might be one of the reasons why vocational schools suffer much less from teacher shortages than primary and general secondary schools. In all three years, the salary differential between the lowest and the highest paid teacher categories increased from step to step. In 1957, secondary teachers in the first step earned only 68 per cent more than female handicraft teachers of the first step. But secondary teachers in the 17th step had almost two and a half times the salary of the corresponding female handicraft teachers. However, the salary policy after 1962 led to a certain democratisation of the salary structure: the differentials between the lowest and the highest paid teacher categories are now smaller than in 1957. Nobody who observes the Austrian teacher scene carefully doubts that teachers are today underpaid. However, it is not easy to prove this with neat figures, because one lacks data on the salaries of highly skilled personnel in industry. Table 26 shows the increases of the gross national product per capita of the gross monthly earnings in Austrian industry and of the hourly earnings in the Vienna region from 1957 to 1966. These figures nearly doubled in 9 years. Before comparing them with the increases in teacher salaries, one has to bear two limitations in mind: first, the last teacher salaries published by Table 22 will be valid for the whole year 1967, but the GNP and earnings - figures of Table 26 date back to the end of 1966. The teacher salaries should be compared with data on earnings for 1967 which will only be available in 1968. They will most certainly be higher than the earnings of 1966. Second, the earnings of Table 26 are averages which include even unskilled manual workers. But the salaries of professionals with grammar school graduation and specially the salaries of highly skilled personnel increased probably more than the average earnings in industry or in the Vienna region. Only these salaries would provide a reasonable basis of comparison with teacher salaries. In view of these two limitations, it is more amazing to see that the salary increases for general primary and secondary teachers lag behind the average earning increases by 10 - 20 per cent. Moreover this applies to beginning teacher salaries only which increased much more than the salaries for all higher teacher steps. To cite an extreme case of disparity: a university graduate in mathematics starts as a grammar school teacher, in 1967, with 3,450 Austrian shillings a month. In one of the international firms which have subsidiaries in Austria, his beginning salary would range between 6,000 and 6,500 Austrian shillings a month. On the average, the disparity is of course smaller.

In the last years, an increasing number of teachers left the schools and went to the economy. They were not only scientists, but even philologists. Today, the government and the teacher unions agree that the teacher salaries, specially the beginning salaries, should be raised to a higher level. The salaries will be the main weapon to reduce teacher shortages. An additional justification for salary increases lies in the prolongation of the school period for primary teachers. They will leave the new teacher training colleges two years later than the pupils of the former teacher training schools. One hopes, therefore, that a new salary scale will be created before 1970/71, the year when the first graduates will leave the teacher training colleges.

Table 22: Monthly Salaries for Teachers in 1957, 1962 and 1967, in Austrian Shillings (20 Austrian shillings = 1 U.S. Dollar)

Year and Step		L_3	L_2V	L_2HS	L_2B	L_1
1957	1st	11 0	1425	1425	1525	1900
	10th	2050	2950	3070	3525	4300
	17th	2710	4200	4900	5000	6425
1962	1st	1497	1991	2099	2208	2617
	10th	2235	3216	3734	3843	4686
	17th	2954	4578	5341	5450	7006
1967	1st	2178	2650	2779	2912	3449
	10th	3252	4238	4920	5063	6179
	17th	4388	6037	7046	7189	9230

Steps:

1st: 1 year of teaching
10th: 20 years of teaching
17th: 34 years of teaching

Teacher Categories:

L3: Female Handicraft Teachers
L2V: General Primary Teachers
L2HS: Upper Primary and Special School Teachers
L2B: Compulsory Vocational Teachers
L1: Secondary General and Secondary Vocational Teachers.

Table 23: Increases of all Teacher Categories and Steps since 1957 (Indices)

Year and Step		L_3	L_2V	L_2HS	L_2B	L_1
1957	1st	100	100	100	100	100
	10th	100	100	100	100	100
	17th	100	100	100	100	100
1962	1st	132	140	147	145	138
	10th	109	109	122	109	109
	17th	109	109	109	109	109
1967	1st	193	186	195	191	182
	10th	159	144	160	144	144
	17th	162	144	144	144	144

Steps and Teacher Categories: cs. Table 22.

Table 24: Salary Differentials between Teacher Steps for each Category and Year (Indices)

Year and Step		L_3	L_2V	L_2HS	L_2B	L_1
1957	1st	100	100	100	100	100
	10th	181	207	215	231	226
	17th	240	295	344	328	338
1962	1st	100	100	100	100	100
	10th	149	162	178	174	179
	17th	197	230	254	247	268
1967	1st	100	100	100	100	100
	10th	149	160	177	174	179
	17th	201	228	254	247	268

Steps and Teacher Categories: cs. Table 22.

Table 25: Salary Differentials between Teacher Categories for each Step and Year (Indices)

Year and Step		L_3	L_2V	L_2HS	L_2B	L_1
1957	1st	100	126	126	135	168
	10th	100	143	150	172	210
	17th	100	155	181	185	237
1962	1st	100	133	140	147	175
	10th	100	144	167	172	210
	17th	100	155	181	184	237
1967	1st	100	122	128	134	158
	10th	100	130	151	156	190
	17th	100	138	161	164	210

Steps and Teacher Categories: cs. Table 22

Table 26: GNP and Salary Indices for 1957, 1962 and 1966

Gross National Product per Capita at Market Prices (Austrian Shillings)		
1957	18.780	100
1962	26.184	139
1966	35.883	191

Gross Monthly Earnings in Austrian Industry (Manual and Non Manual Workers)	
1957	100
1962	141
1966 (October)	192

Hourly Earnings in the Vienna Region	
1957	100
1962	142
1966(4th quart.)	206

2. Career Prospects

The career prospects for teachers are very limited. It is almost impossible to pass for more than a limited time from the pre-primary to the primary or from the primary to the secondary teaching levels without taking the usual courses and passing the examinations. Only within the primary level, a career chance has been opened: it is possible to pass from the general primary (Volksschule) to the upper primary level (Hauptschule), in other words, to change from an all subject teacher to a special subject teacher. The same possibility is open to general primary teachers who want to become special teachers. After three years of general primary practice, teachers can attend the courses in the Pedagogical Institutes which lead to the examination for the upper primary level. They do not have to resign during this training period and they receive their full salary. Apart from this, there is only one career possibility for Austrian teachers:

(a) Provisory teacher:

In the years of the teacher surplus, teachers could remain in a non permanent position even for ten years. Today, they remain non permanent perhaps for a few years; sometimes they become permanent immediately. Provisory teachers (Vertragslehrer) have a little higher salary than permanent teachers.

(b) Permanent teacher

(c) Deputy Director:

They exist only in compulsory vocational schools.

(d) Director:

The way from teacher to headmaster is the only serious career possibility beyond the cases mentioned above. School directors receive a salary increment. The chance to become director is on the average 1:10, 1:20 or 1:30, depending upon the number of teachers in a given school. In other words, this chance is very small. In 1966, Austria had 6,134 school directors. 5,169 of them were primary school directors. Thus, 18 per cent of Austria's 28,692 primary teachers were directors as well. However, this figure is fallacious, because more than 2,200 of these teachers were employed in one-class, two-class or three-class schools, mostly in remote border regions. These positions are not envied at all. On the contrary, a teacher who is sent to a one class or one teacher school where he becomes director as well, considers his fate not as a career but rather as a punishment.

(e) Regional and Provincial School Inspector:

They number about 150 in the whole of Austria. In other words, the chance to become school inspector is so small that few teachers will place it seriously at the top of their career wishes.

3. Working Conditions

Austria has several teacher unions, for compulsory and for secondary teachers. They defend the teacher interests quite actively and, at least in the last years, often with success. Today, the teacher unions concentrate their efforts on improving the teacher salaries but until a few years ago, their main focuses were employment and working conditions. The Teacher Employment Act of 1962 (Landeslehrerdienstrechts - Überleitungsgesetz) defined finally the rights and duties of the teachers in a way which the teacher unions approved to a large extent. For the time being, Austria has settled all major problems related to the teacher employment conditions. The Teacher Employment Act establishes the conditions for employment, retirement and dismissal of teachers. It fixes the weekly teaching load and the vacation rights for the different teacher categories (cf. Chapter V(2)).

There are two main teacher categories: Federal teachers (Bundeslehrer) and provincial teachers (Landeslehrer). Intermediate and secondary, general and vocational teachers are federal teachers, all compulsory teachers - primary and vocational - are provincial teachers. All teachers are paid by the Federation, and the whole legislation is federal as well. The Teacher Employment Act concerns mainly provincial teachers, which means that the provinces are in charge of carrying it out.

This is their main responsibility. Obviously, they do not have the same autonomy in school matters as the Swiss Cantons or the federal states of the U.S.A. Many other important points of the Teacher Employment Act of 1962 have already been broached. The Act narrows the right of the school authorities to keep teachers on a provisory basis - in the years before, the wide application of this right stirred up much bitterness among teachers. Moreover, the school authorities cannot send compulsory teachers away from their native province without their consent. The Act gives general primary teachers the possibility to move to the upper primary level. It states finally that those teachers who canvass for votes for a seat in the federal or in a provincial parliament have to be discharged from their teaching duties. However, they do not lose their normal teacher salaries. Together, the present teacher employment laws rarely provide reasons for complaints. If Austrian teachers still seem frustrated, the roots of this must be looked for elsewhere.

4. Social Position and Social Origin of Austrian Teachers

(a) Social Position

Few reliable data are available on the position of teachers in the Austrian society, although the prestige aspect of the teacher profession can be just as important as the salary aspect or the working conditions. In the last years, some research projects on personal characteristics, social structure and motivations of teachers have been carried out. It is doubtful whether their results are representative for a majority of Austrian teachers. However, it was highly suggestive to observe the bitter attacks which some teachers launched against the authors of these studies. They revealed that resentment and frustration are quite usual among Austrian teachers as in practically all other European countries as well. This is certainly not desirable, and one should know more of the psychological reasons which stand behind this frustration. The unduely low salaries of most teachers are a very important, but probably not the only reason.

Austrian teachers traditionally enjoyed a very high authority The great amount of respect which Austrian society showed towards education, titles and academic credentials is almost proverbial, and all teachers together hold probably the highest number of titles and credentials of all professional groups in Austria. Until today, the general secondary teacher is called "Professor", a title which the other German speaking countries reserve for university professors alone. But there are other titles beyond this. Austria has a special law, the "Amtstitelverordnung für Bundes und Landeslehrer" regulating the distribution and use of honorary and service titles for teachers. However, the value of these external status symbols seems to decrease and there were already young teachers who protested that one tried to satisfy them with titles instead of salary rewards. At the same time, the traditional ways of teaching are more and more under attack, and this not only from outsiders but from members of the teaching force as well.

Traditional teaching in Austria was accused to be authoritarian. Learning by heart played a prominent role in it, while discussion was accordingly insignificant. The convictions of the teacher counted very much and the pupils were supposed to accept them without arguing. This might exaggerate a little the traditional aspects of Austrian school philosophy, but it can not be denied that its renewal has been requested again and again last not least by the school inspectors: authority should give way to argument, and learning by rote to independent thinking.

The devaluation of the titles and of other former status symbols and the repeated invitation to renounce on an old authority position are probably breeding a feeling of insecurity in many teachers. They might feel that they are going to lose a part of their old glory without seeing what their social rank will be in the future. But status insecurity leads to frustration, and the conviction that they are underpaid must of course increase it.

A more careful investigation should be made into the feeling of resentment which is manifest among teachers in relation to their status insecurity. Perhaps, this suggestion applies only to some clearly limited groups of teachers, for example, to the older teachers, or to the teachers in the big cities. But if it holds true, one must expect that even the forthcoming salary increases will not remove completely the frustration feeling. Of course, nothing of what has been said this far is sensational. Austria just follows a pattern which is well known from many other countries where wars, political upheavals and finally economic growth brought about rapid social change. However, the authority of the Austrian teachers was higher and remained for a longer time unchallenged than in many other countries, and this might today aggravate their problems.

To avoid all misunderstandings, it must be underlined that status insecurity does not mean actual loss of prestige. These two problems are not necessarily linked; it has not been said here that the prestige of Austrian teachers is decreasing. This certainly would not be true, at least not in the countryside, where becoming a teacher is still regarded as moving socially upward. However, it is visible that many teachers fear the possibility of a prestige loss - hence for example their wish to place the new teacher training colleges at a university level.

(b) Social Origin

Information on the social origin of teachers is just as scanty. For example, one knows the social background of the 118 pupils who attended in 1966 the teacher training courses for secondary school leavers in Vienna. However, nothing indicates that their example is representative for all primary teachers. 17 per cent of these pupils are children of independent professionals, 62 per cent stem from white collar homes (teachers, civil servants, clerical workers), only 10 per cent are children of dependent manual workers, 11 per cent are children of retired parents or others. In this case, the imblance between the 79 per cent pupils from independent and white collar homes and the 10 per cent working class children is striking. On the whole, one can assume that a majority of primary teachers originate still from white collar homes.

Today it is a main policy aim of the Austrian government to democratise access to the teacher profession. The tools to pursue this aim are the grammar schools mainly for future teachers (Musisch-Pädagogische Realgymnasien) which have been described above. They consist only of the second grammar school cycle and permit therefore their pupils to stay four years longer in general or upper primary school. It is hoped that this will facilitate their adaptation to the grammar school level.

As to the social origin of the secondary teachers, at least a preliminary basis is provided by the social distribution of the Austrian students in the philosophical university faculties. Since almost all general secondary teachers graduate at one of the philosophical faculties, it is likely that their social composition is not very distant from that of all students in the philosophical faculties.

In 1963/64, 25 per cent of the latter were children of independent fathers (liberal professions, businessmen, craftsmen, farmers), 56 per cent came from white collar homes (civil servants, clerical workers), only 6 per cent belonged to the working class (dependent manual workers), 10 per cent were children of retired fathers and 3 per cent were unknown or others. Here, the bias between children from independent and white collar homes (81 per cent) and children of dependent manual workers (6 per cent) is even more visible. In the last years, the government increased very generously, the number and the amount of fellowships which were attributed to university students. This might in the very long run lead to a higher representation of working class children in the secondary teacher force.

CHAPTER VII

FUTURE TEACHER SUPPLY AND TEACHER BALANCE SHEET

Chapter III has projected the teacher demand for the period from 1965 to 1975. Chapter VII, which projects the teacher supply for the same period, is logically a continuation of Chapter III. Before, Chapters IV, V, and VI have described the sources of this supply and the present teacher situation. The future supplies have been calculated by the planning office of the Federal Ministry of Education, in collaboration with the Austrian Statistical Office. The forecasts are mainly based on demographic developments, school legislation, class-room facilities and present inflow-, output-, and attrition rate trends in teacher training schools. They resulted in future assessment for 1) secondary teachers, and, 2) primary teachers. The first primary teacher assessment assumes an unfavourable development of the future supply and gives its lower limits, the second is optimistic and gives the upper limits, presupposing that no classroom shortage will impede the forthcoming school expansion. Of course, not all holders of teaching diplomas will really take up teaching. Based on past experience, one assumed that the following proportions of teacher graduates will enter the active teacher force:

85% of the graduates of teacher training schools,
95% of the graduates of teaching courses for secondary school leavers,
95% of the graduates of teacher training colleges,
97% of the graduates of teaching examinations for general secondary schools.

It must be stressed that the following balance sheets indicate the total need for primary and secondary teachers, in other words, not only the needs of the primary and general secondary schools, but the needs of the vocational schools as well, as far as teachers with primary and secondary school teaching diplomas are concerned. For vocational teachers without teaching diplomas, no supply figures have been calculated. One believes that enough vocational teachers of this type will be available at wish if the teacher salaries are high enough to compete with the salaries in the economy.

Table 27 gives the future annual supplies of primary teachers. Table 28 compares them with the teacher demand figures of Chapter III (cf. Table 11), increased by the number of primary teachers who will go to vocational schools. In Table 29, the estimated supplies of grammar school teachers are confronted with the demand figures of Chapter III (cf Table 12), again increased by the number of teachers who will be required by vocational schools.

The differences reveal the expected teacher shortages. The shortage of primary teachers will be slightly smaller after 1970 than before. The contrary applies to grammar school teachers. In the late nineteen seventies, almost three times as many of them will be lacking than in the period 1965-70. These figures need some interpretation. Table 30 compares, therefore, projected teacher shortages with teacher target figures for 1970 and 1975, including primary and general secondary teachers in vocational schools. It appears that the difference between the two assessments for primary teachers does not lead to a noteworthy gap between the final percentage figures. Primary teacher shortages of the whole period, and general secondary teacher shortages until 1970 remain within tolerable limits, as Chapter V has already stressed. Primary teacher shortages will even decrease in the later years of the reference period. However, the shortage of general secondary teachers could after 1970 become a major bottleneck for Austria's school expansion.

Table 27: Future Supplies of General Primary, Upper Primary and Special School Teachers (General Subject Teachers only)

Year	First Assessment		Second Assessment	
	Projected No. of Graduates	Projected No. who will enter teaching	Projected No. of Graduates	Projected No. who will enter teaching
1964/65	1,680	1,488	1,755	1,553
1965/66	2,000	1,767	2,070	1,828
1966/67	1,870	1,647	1,950	1,716
1967/68	2,000	1,901	2,070	1,967
1968/69	1,820	1,730	1,920	1,824
1964/65-1968/69	9,370	8,533	9,765	8,888
1969/70	1,630	1,549	1,750	1,663
1970/71	1,730	1,644	1,880	1,786
1971/72	1,830	1,739	2,010	1,910
1972/73	1,930	1,834	2,140	2,033
1973/74	2,030	1,929	2,270	2,157
1969/70-1973/74	9,150	8,695	10,050	9,549

(Source: "Educational Planning and Economic Growth in Austria 1965-1975")

Table 28: Demand for and Supply of Teachers with the Primary School Teaching Diploma 1965-1975 (Rounded Figures)

	First Assessment	Second Assessment
I.) Period 1965/66 - 1969/70		
Demand for teachers 1965-1970	11,200	11,200
Number of unfilled teacher posts at 15.10.1965	+3,000	+3,000
Adding up to the total demand for teachers	14,200	14,200
Projected supply of teachers (Table 24)	-8,500	-8,900
Teacher shortage	5,700	5,300
II.) Period 1970/71 - 1974/75		
Demand for teachers 1970-1975	7,900	7,900
Teacher shortage of the period 1965/66 - 1969/70	+5,700	+5,300
Adding up to the total demand for teachers	13,600	13,200
Projected supply of teachers (Table 24)	-8,700	-9,550
Teacher shortage	4,900	3,650

(Source: Ibid.)

Table 29: Demand for and Supply of Teachers with the Grammar School Teaching Diploma 1965-1975 (Rounded Figures)

I.) Period 1965/66 - 1969/70	
Demand for teachers 1965-1970	3,500
Number of unfilled teacher posts at 15.10.1965	+400
Adding up to the total demand for teachers	3,900
Projected supply of teachers	-2,100
Teacher shortage	1,800
II.) Period 1970/71 - 1974/75	
Demand for teachers 1970-1975	5,650
Teacher shortage of the period 1965/66 - 1969/70	1,800
Adding up to the total demand for teachers	7,450
Projected supply of teachers	-2,350
Teacher shortage	5,100

(Source: Ibid.)

Table 30: Teacher Targets and Teacher Shortages in 1970 and 1975 (including Primary and General Secondary Teachers in Intermediate and Secondary Vocational Schools)

Teachers with Teaching Diploma for General Primary, Upper Primary and Special Schools:

	1970	1975
Target Number	35,300	37,600
Projected Shortage (1st and 2nd assessment)	5,300/5,700	3,650/4,900
Shortage in % of Target	15% - 16%	10% - 13%

Teachers with Teaching Diploma for General Secondary Schools

	1970	1975
Target Number	11,200	15,800
Projected Shortage	1,800	5,100
Shortage in % of Target	16%	32%

CHAPTER VIII

TEACHERS IN THE FRAMEWORK OF ALL HIGHLY SKILLED PERSONNEL

The main aim of Austrian economic policy for the next ten years is to create the necessary conditions for a sustained rate of growth. One of the most important conditions will be to provide the economy with enough highly skilled personnel. Of course, this does not apply to Austria only, but it counts in Austria perhaps more than in other European countries. Austria is still poorer than the other industrialised countries of Europe; the country has no noteworthy natural resources, but a growing foreign trade, and it will increasingly depend upon its technical and industrial skills. The rate of growth of the Austrian economy will in the future largely be based upon the efficiency and international competitiveness of its industrial and service sectors. This chapter does not focus on all skilled workers but on highly skilled personnel only, defined as university graduates and higher technicians.

The relationship between highly skilled personnel and the teaching force is circular: the education of highly skilled persons requires teachers, but some of them must flow back to the teaching force to keep the system alive. The first aspect of this relationship has already been taken into account, at least partly: Chapter III calculated the number of teachers which will be necessary to educate Austria's future manpower. It is practically impossible to single out the teachers who are responsible for the education of highly skilled manpower only. This chapter will investigate the proportion of highly skilled personnel which must devote itself to teaching in the next ten years. It goes without saying that this does not include primary teachers. Their degrees are not academic in Austrian terms, and they cannot therefore be compared with highly skilled personnel. Included are secondary general and vocational teachers, though some of the latter do not have university degrees either.

Table 31 reveals which proportion of highly skilled personnel has been teaching in secondary general and vocational schools since 1951 (the percentages are a little too high, because some vocational teachers have no academic degree and the census figures did not record them as highly-skilled). The table shows how this percentage will change, if the teacher-plans are successfully carried out up to 1975. The trend which becomes visible is amazing. In 1951, only 10 per cent of all highly skilled manpower were secondary general and vocational teachers. This percentage increased to about 13 in 1965.

In 1975, about 20 per cent of all highly skilled manpower, or, every fifteen university graduates will be employed in a secondary general or vocational school. This percentage shows the very particular effort which Austria will have to undertake in the secondary and vocational fields. Of course, this trend can not increase forever, because it would lead to a point where all university graduates would be secondary teachers. Therefore, the proportion of teachers in the highly skilled labour force will stabilize itself or even decrease sometime after 1975.

Table 32 indicates the practical meaning of these figures for the coming ten years. Austria will need, between 1965 and 1975, an additional number of 53,823 highly skilled persons. This figure represents the sum of replacement and expansion demand. 26 per cent, or more thn every fourth of these graduates who will enter the labour force between 1965 and 1975, will leave to take up teaching at a general or vocational secondary school. Between 1965 and 1970, this will be 21 per cent, between 1970 and 1975, 29 per cent of all graduates.

This proportion is so high that it will not be possible to direct it into the teaching force without special efforts, if the present full-employment situation continues. Austria's teacher situation is a paradox while the proportion of all highly skilled persons who became teachers increased since 1951, their salary increases lagged behind the increases which accrued to other highly skilled manpwer (cs. Chapter VI (1)). In other words, the skill-premium for teachers was reduced. It is true

Table 31: Proportion of Secondary General and Vocational Teachers in Relation to all Highly Skilled Manpower of Austria 1951 - 1975

Year	Highly Skilled Manpower (Census figures for 1951/1961, Estimates for 1965/1971/1975) (1)	Secondary General and Vocational Teachers (2)	(2) as % of (1) (3)
1951	76,940	7,761	10
1961	86,824	11,183	13
1965	95,000	12,703	13
1971	108,000	15,627	14
1975	120,000	21,495	18
	(110,000)		(20)

The demand for highly skilled personnel for the target year 1975 has been estimated at 120,000, but the real figure for that year is very unlikely to exceed 110,000. The teacher-proportion varies accordingly. (Source: "Educational Planning and Economic Growth in Austria 1965-1975").

Table 32: Additional Demand for Highly Skilled Manpower and for Secondary General and Vocational Teachers in Austria 1965 - 1975

	1965-1970	1970-1975	1965-1975
High Skilled Manpower:			
Expansion Demand	13,500	16,000	29,500
Replacement Demand	11,519	12,804	24,323
Total Additional Demand	25,019	28,804	53,823
Additional Demand for Secondary General and Vocational Teachers	5,354	8,424	13,778
Additional Demand for Teachers in % of Total Additional Demand for Highly Skilled Manpower	21%	29%	26%

(Source: as for Table 31)

that some people choose the teaching profession as a calling, irrespective of material considerations, but it would be very unwise to overestimate their number, especially in a time of manpower shortage. Trying to increase the percentage of highly skilled persons who choose the teaching profession by reducing the skill premium for teachers is not only paradoxical, but is irrational. The two trends will not develop indefinitely in two opposite directions: at one point, one of the trends will arrest the other. In simple terms: if full-employment continues, the teacher targets which the Austrian government has set for 1970 and 1975 will only be reached if the teacher salaries, especially the commencing salaries for young teachers, are adjusted to the salaries which the economy pays to professionals with equivalent qualifications.

Thus, the manpower analysis leads to the same conclusion with regard to teacher salaries as the foregoing chapters. Fortunately, efforts are already being made to raise these salaries.

CHAPTER IX

TEACHER PRODUCTIVITY

1. Definitions

In the last few years, the term teacher productivity has been used in many different and often confusing ways. This stems from the fact that most immediate results of the teaching process are essentially qualitative; they are to be found in the mind and brain of the pupils and can rarely be measured. On the other hand, the productivity concept is a result of economic thinking; in statistical practice, it is purely quantitative and relies upon concrete figures.

One should call it an increase in teacher productivity when:

(a) one given teacher accelerates and facilitates within a given amount of time the learning process for a given number of pupils, without reducing the quantity or quality of his teaching; or when

(b) one given teacher conveys the learning process within a given amount of time to a greater number of pupils, without slowing it down or making it more difficult, and without reducing the quantity or quality of his teaching.

Methods to improve the teacher productivity can roughly be grouped into four categories:

(a) *Personal Efficiency*: teacher training, health, enthusiasm.

(b) *Pedagogical Innovation*: new teaching methods, involving for example, class size or class structure changes.

(c) *Division of Labour*: reduction of non-teaching duties of teachers, and a more rational utilisation of the teacher force.

(d) *Technical Innovation*: replacement of teachers by technical devices.

All four methods presuppose a certain amount of educational research. Only a clear knowledge of the working of the educational system permits one to develop methods which will improve teacher productivity. Teacher productivity, in the last 200 years, has increased much less than the productivity of almost all other professions. This is due to the fact that the principles of rationality which marked the growth of industrial society have almost not been applied to teachers, especially the division of labour and the technical innovation, or the substitution of labour through capital. Of course, the teaching profession offers less possibilities to rationalisation than most other professions, because of the mainly qualitative character of its functions. But the experience of the last years proved that rationalisation can be very successfully applied even to teachers. Austria participates fully in this successful experience. The more traditional aspects of Austrian teaching which Chapter VI (4) has described, have never prevented the school authorities from looking for new and more efficient teaching methods. The first method to improve teacher productivity will not be mentioned any more, since this report devotes one chapter to the training and retraining and, therefore, to the efficiency of teachers.

However, before tackling the three other methods, one should mention the state of educational research in Austria.

2. Educational Research in Austria

Austria has very progressive legal provisions for educational research. The School Organisation Act of 1962 explicitly charges the Pedagogical Institutes to carry out educational research, in addition to their teacher retraining tasks (cf. Chapter IV (5)). This provision is very remarkable, because it places the research task in the hands of the same school authorities who are responsible for introducing educational innovations. The path of new educational ideas and discoveries to their testing and final application in practice is, therefore, very short. It has already been mentioned that in the last years the

Pedagogical Institutes carried out several research projects on teachers. They were at least partly inspired by the growing teacher shortages.

Of course, educational research exists at the university level as well, but its outcome was sparse in the last years, mainly because three of Austria's four university chairs for pedagogics remained empty for a long period.

The laws provide the school authorities with an additional and just as important research possibility, the right to perform school experiments. The School Organisation Act, paragraph 7, states that the Federal Ministry of Education or the provincial school boards "can carry out school experiments at public schools in order to test special pedagogical or organisational measures". The school authorities use this possibility, normally in primary schools. For example, the teacher training courses for secondary school leavers which are being organised since 1962, are school experiments to prepare the future teacher training colleges. These courses permit the Ministry of Education to experiment with the tentative curriculum for the future teacher training colleges.

The possibility to carry out educational research and school experiments can considerably support future efforts to increase teacher productivity.

3. Pedagogical Innovation

Historically, pedagogical innovation is the oldest device to increase teacher productivity. Therefore, the following remarks are necessarily very incomplete.

A trivial, but still very topical pedagogical innovation is the reduction of class sizes. The Austrian authorities try to reduce unduely big classes as much as possible. The School Organisation Act indicated therefore the optimal and maximal class sizes for all school types. In primary, secondary general and secondary vocational schools, the normal class size should be 30 pupils, and their number should not exceed 36. However, the teacher shortages forced Parliament to postpone the time limit until this part of the law has come into force (cf. Chapter V).

Numerous new teaching methods are continuously being introduced or tested. They cannot all be described. For example, one tried to group pupils within a given class according to performance and to teach the different groups separately; or, different subject teachers were invited to treat for a certain time the same subject, everyone from the point of view of his own discipline.

4. Division of Labour

It is a well known fact that teachers very often perform administrative and other secondary tasks. In a time of teacher shortage, this is a wastage of scarce resources. A better division of labour would hence increase the teacher productivity. The same principles of specialisation and of division of labour are neglected when teachers have to teach heterogeneous classes, especially with pupils from very different age groups. This reduces the substance and the level of teaching, because the progress of the whole class depends upon the receptivity of its weakest, that is to say mostly youngest members.

Actually, this problem was always a matter of concern to the Austrian school authorities, and it is still the main obstacle to a rational use of primary teachers. In 1965/66, Austria had 4,295 general primary schools (Volksschulen) which should have had eight classes for the age groups from 7 to 14. However, 813 of these schools had only one class and one teacher, 879 had two classes and 573 three classes. Altogether, 2,265 or more than half of all general primary schools were running in a rudimentary form only, and pupils from widely different age groups had to follow the same lessons. One has to recognize that Austria's mountainous structure and the large number of its small scattered villages makes it impossible to have in every primary school eight classes. Since 1945, the school authorities devoted seven national meetings to discuss the problems of Austria's country schools; but it was obvious that pedagogical and organisational innovations could not make up for all the original disadvantages of one- or two- class schools. Moreover, the fact that many able teachers try to escape from the land or refuse to teach there at all, increases, of course, the disadvantages of the country schools. Therefore, the school authorities fostered in the last years a large school building programme in the countryside; moreover, one hopes that school buses will, in the future, collect the pupils from wider areas and therefore help to centralise primary teaching in greater school units. One plans to reduce the present 813 one-class primary schools to 500 in 1970, and to 400 in 1975.

Even in schools with all eight classes, the scarce teacher resources can be better employed and the productivity increased if one relieves the teachers from a part of their secondary tasks. Austria proved this with the creation of a special teacher type, the "Erzieher" (educational assistant). This is an instructive and most commendable example of how division of labour can be applied to the teaching profession. The School Organisation Act, paragraphs 102 - 109, says that Erzieher should serve as educational assistants in boarding schools (Schülerheime) and boarding Kindergartens (Horte). Their task is to supervise boarding school children of the pre-primary, the primary and even the secondary level, to play with them, to teach them music, drawing and gymnastics and to help them to do their homework. Their weekly teaching load amounts to about 40 hours. It is manifest that they are a great help to primary and secondary teachers who would otherwise have to spend their own time to do the same task, as it still happens in many countries.

There are two training schools for educational assistants, which count for the moment 114 pupils. The courses last one year for grammar school graduates and five years for primary school graduates, including courses at teacher training schools. They embrace a thorough theoretical and practical preparation. Graduates numbered 10 in 1961 and 60 in 1965. One plans to increase their number to 80 annual graduates for the coming decade.

Probably there exist still other possibilities to relieve teachers from administrative and other secondary tasks. The school directors have already some administrative assistance. It is doubtful whether much more can be done in primary schools, but competent sources estimated that in general secondary schools, one could economize with six to eight hours a week of highly qualified work if there was a more rational division of labour. If this is true, it would provide an additional way of narrowing the forthcoming teacher gap in general secondary schools.

5. Technological Innovation

Technolgoical innovation, or the substitution of teachers through technical devices like radio and television is the newest and most promising way of improving teacher productivity. The Austrian school authorities recognized the usefulness of these technical devices quite early and are using them today extensively:

School broadcasts

The school broadcast is the oldest and, therefore, most developed technical teacher aid. Austria's radio stations send about 650 school broadcasts during the school year, which amount to three or four hours a day. These broadcasts are recorded on tapes and are at the disposal of the teachers. Thus, broadcasts can be repeated in the classroom at will. Once a year, the main lines of the school broadcasting programme are discussed at a national level.

School Television

School television in Austria is relatively recent. It dates back to 1959. In 1966/67, there were three weekly television broadcasts during the school year, two of them were repetitions. The school authorities plan to expand them by developing, in collaboration with industry, a cheap television set which should suit school requirements. School television broadcasts are being filmed, but their projection in the classroom is still very rare because the schools lack movie projectors with sound.

For the time being, one tries to overcome this shortage by lending transportable movie projectors with sound from a central place.

School Films and Slides

School film and slide projections are a daily feature in Austrian schools. Especially in vocational education, school films play a continuously growing role. All Austrian teachers pass a compulsory examination on the use of film apparatus which is a remarkably advanced law.

Records and Tapes

For the time being, Austria is testing the use of "language laboratories" which will mechanize and facilitate the teaching and learning of modern languages. The school authorities prepare the production of tapes for the teaching of German and other languages.

All in all, technological innovation applied to teaching has not come to an end. On the contrary, technological innovation within the coming generation is likely to revolutionize the form and even the substance of education. If the Austrian school authorities remain as up-to-date and openminded towards technology as they were in the last years, one can conclude that Austria is well prepared for this forthcoming time of change.

ANNEX I : FORECASTING METHODS

The following remarks describe the teacher forecasting methods which the authors of the report "Educational Planning and Economic Growth in Austria 1965-1975" have used. The results of the demand forecasts are integrated into Chapter III of this report, the results of the supply forecast into Chapter VII.

1) Demand for Teachers

General Compulsory Schools (General Primary, Upper Primary and Special Schools)

a) First, the number of future pupils was projected on the basis of present age-groups, mortality rates and birth rates (fertility index).

b) The number of nursery teachers was calculated according to the legal provisions, that is to say :

1 teacher for 30 pupils in General Primary Schools (Volksschulen)
1 " " 20 " " Upper Primary Schools (Hauptschulen)
1 " " 15 " " Special Schools (Sonderschulen).

To this, a teacher reserve of 3% was added.

c) The following complications were taken into account :

i) Every one-class school got 1 teacher irrespective of the number of pupils.
ii) For 5 one-class schools, a second teacher was calculated.
iii) It was assumed that the number of one-class schools would decrease to 500 in 1970 and to 400 in 1975.
iv) For the ninth compulsory school grade (Polytechnischer Lehrgang), one calculated 1 teacher for 20 pupils.
v) One added to this the number of general compulsory teachers who will teach in non compulsory schools. It was assumed that their present percentage will remain stable.

Compulsory Vocational Schools

No teacher forecasts were made, since the economy decides upon the number of compulsory vocational pupils (apprentices).

General and Vocational Secondary Schools

a) The number of future pupils was projected as for general compulsory schools. The results of these projections were checked by the forecasts which the individual school directors had made for their schools.

b) The school directors estimated the number of necessary classes for 1970 and 1975.

c) The number of future classes was multiplied with the number of weekly hours per class, broken down according to school type. The total of weekly class hours was thus calculated for 1965, 1970 and 1975.

d) In order to calculate the future demand for teachers it was assumed that their total number would increase with the same rate as the total weekly class hours. The basis was 1965. It was possible to take the teacher figures of 1965 as a starting point because the secondary teacher shortage was still small in that year.

e) Not all teachers in secondary schools will be secondary teachers. Some will be general compulsory teachers. In order to come to the total secondary teacher demand, it was assumed that the present percentage of secondary teachers in secondary schools will remain stable. The final teacher demand for each category was split off into three variants, according to the probable retirement age of teachers (cf. Chapter III).

There are some critical points in these forecasts, because one could not estimate the future development of all variables. It was necessary to assume that the following variables would remain as they are today :

1) weekly teaching loads,
2) distribution of teachers according to teaching qualification,
3) curriculum,
4) distribution of secondary schools according to school type,
5) relation between full-time and part-time teachers.

In spite of all this, the demand forecasts which were started in 1963/64, appeared to be quite accurate until now (1967).

2) Supply of Teachers

a) The basis of the supply forecasts for all teacher groups was a trend extrapolation. The teacher graduations of the past, expressed in percentages of the relevant age-groups, have been projected into the future. These percentages were applied to the relevant age-groups of the future.

b) This trend extrapolation was checked and corrected with the results of an inflow, enrolment and drop-out analysis. Since the present inflow and enrolments were known, it was possible to control the reliability of the trend extrapolation taking into account the probable drop-outs.

The supply forecasts led to two different estimates. The minimum estimate assumed that not all pupils who wanted to become teachers could enrol at teacher training colleges and universities. Financial, teacher and class-room shortages were supposed to be responsible for this limitation.

The maximum estimate, on the contrary, assumed that no shortages were forthcoming. Therefore, all applicants could enrol at the appropriate teacher training colleges and university faculties.

These supply forecasts date back to 1963/64. In the meantime, they proved to be quite reliable. The actual teacher supply moved, thus, between the minimum and the maximum estimate, leaning more towards the optimistic maximum estimate, except for technical teachers.

Annex II: Statistical Tables

The following tables present the teacher statistics in another way than the text in order to make them internationally comparable. Many of these data have already been given in the text.

Table I : Number of Full-time Teachers in Primary Education, Public and Private, by Sex, for the Years 1951, 1955, 1960, 1965, and Demand Projections for 1970 and 1975.

Year	Including Religion and Arts and Crafts Teachers, Total (1)	Excluding Religion and Arts and Crafts Teachers, Total (2)	Female Teachers in Column (2) (3)	Private Teachers in Column (2) (4)
1951	35.825	28.461	..	1.012
1955	34.335	27.579	14.833	1.018
1960	33.232	26.919	14.936	940
1965	35.769	28.905	16.480	992
1970	..	35.300	..	..
1975	..	37.600	..	..

Table II : Number of Full-time Teachers in Primary Education, Excluding Religion and Arts and Crafts Teachers, Public and Private, by Sex and Age-Groups at 1.1.1964.

Age-Group	Total	Female
24 years and below	4.198	2.691
25-29	2.008	1.205
30-34	3.464	2.009
35-44	9.376	5.720
45-54	6.133	3.289
55-64	3.406	1.586
65 years and above	107	88
Total	28.692	16.588

Table III : Enrolments and Population of corresponding Age (6-14 years) in Primary Education, Public and Private, for the years 1950, 1955, 1960, 1965, and Projections for 1970 and 1975.

Year	Enrolments	Population: No. of 6-14 year olds
1950	866.600	970.800
1955	764.221	957.700
1960	744.208	887.300
1965	793.122	932.000
1970	981.649	1.078.900
1975	1.029.321	1.141.300

Table IV : Number of Full-time Teachers leaving and entering the Primary Teacher Force, Public and Private, during the Calendar Years 1961 and 1963, by Sex (Leaving : Death, Retirement, Resignation and Dismissal).

Year	Entering Primary Teacher Force		Leaving Primary Teacher Force	
	Total	Female	Total	Female
1961	1,214	766	830	475
1963	1,636	1.039	835	497

Table V : Number of New Entrants, Enrolments and Graduates of Teacher Training Schools (Primary Teachers), Public and Private, for the Years 1951, 1955, 1960, 1965, and Projections for 1970 and 1975.

Year	New Entrants	Enrolments	Graduates: Regular Training Programmes	Graduates: Teacher Training Courses for Secondary School Leavers	Total Graduates
1951	823	4,030	892	-	892
1955	962	4,012	626	-	626
1960	1,439	5,496	779	80	859
1965	2,596	10,229	1,054	544	1,598
1970	..	..	1,880	-	1,880
1975	..	..	2,400	-	2,400

Table VI : Number of Full-time Teachers in General Secondary Education leading to Higher Education, Public Teachers only, excluding Teachers in Teacher Training Schools and in "Grammar Schools mainly for Future Teachers", by Sex, for the Years 1951, 1955, 1960, 1965, and Demand Projections for 1970 and 1975.

Year	Total	Female
1951	3,896	..
1955	4,640	1,479
1960	5,336	1,817
1965	6,185	2,298
1970	9,500	..
1975	13,600	..

Table VII : Number of Teaching Qualifications of Full-time Teachers in General Secondary Education leading to Higher Education, Public and Private, by Sex and Main Subject Groups at 1.1.1964.

Main Subject Group	Total	Female
Science	3,342	723
Humanities	6,847	2,602
Other (including Religion)	2,397	791

The numbers cannot be added because most teachers have two teaching qualifications.

Table VIII : Number of Full-time Teachers in General Secondary Education leading to Higher Education, Public and Private, by Sex and Age-Groups at 1.1.1964.

Age Group	Total	Female
24 years and below	256	167
25 - 29	603	287
30 - 34	787	331
35 - 44	2,001	799
45 - 54	2,211	724
55 - 64	1,219	380
65 years and above	128	48
Total	7,205	2,736

5

Table IX : Enrolments and Population of corresponding Age (10 - 17) in General Secondary Education leading to Higher Education, Public and Private, for the Years 1950, 1955, 1960, 1965, and Projections for 1970 and 1975.

Year	Enrolments	Population : No. of 10-17 year olds
1950	59,379	771, 900
1955	84,593	884, 400
1960	88,811	808, 300
1965	96,147	788, 300
1970	116,129	954, 500
1975	142,949	1,096,300

Table X : Number of all University Graduations (Austrian Citizens only) and Number of Teacher Graduations for General Secondary Schools leading to Higher Education, by Sex, for the Years 1955, 1960, 1962.

Year	All University Graduations	Secondary Teacher Graduations	
		Total	Females
1955	2,705	174	75
1960	2,776	182	87
1962	3,416	264	143

Table XI : Number of Full-time and Part-time Teachers in Intermediate and Secondary Vocational Education, Public and Private, by Sex, for the Years 1951, 1955, 1960, 1965, and Demand Projections for 1970 and 1975.

Year	Total	Female
1951	3,056	1,329
1955	3,862	1,591
1960	4,913	1,978
1965	5,508	2,277
1970	6,100	..
1975	7,800	..

Table XII : Number of Teaching Qualifications of Full-time and Part-time Teachers in Intermediate and Secondary Vocational Education, Public and Private, by Sex and Main Subject Groups, at 1.1.1965.

Main Subject Group	Total	Female
Science	643	174
Humanities	1,537	627
Technical and Vocational Subjects	3,029	1,362
Other (Gymnastics)	203	97

Table XIII : Number of Part-time Teachers in Intermediate and Secondary Vocational Education, Public and Private, by Sex, for the Years 1951, 1955, 1960, 1965.

Year	Total	Female
1951	644	314
1955	756	344
1960	984	394
1965	1,233	404

Table XIV : Number of Full-time and Part-time Teachers in Intermediate and Secondary Vocational Education, Public and Private, by Sex and Age-Groups at 1.1.1965.

Age-Group	Total	Female
24 Years and below	348	259
25 - 29	534	307
30 - 34	519	193
35 - 44	1,553	562
45 - 54	1,269	397
55 - 64	893	197
65 Years and above	84	29
Total	5,200	1,944

Table XV : Enrolments and Population of corresponding Age (14 - 19) in Intermediate and Secondary Vocational Education, Public and Private, for the Years 1950, 1955, 1960, 1965, and Projections for 1970 and 1975.

Year	Enrolments	Population: No. of 14-19 year olds
1950	24,219	534, 500
1955	42,211	623, 700
1960	43,480	634, 500
1965	42,717	596, 900
1970	56,819	586, 200
1975	59,416	690, 700

Table XVI : Number of Graduations in different Training Schools for Vocational Teachers, Public and Private, for the Years 1951, 1955, 1960, 1965, and Projections for 1970 and 1975.

Year	Training Schools for Vocational Teachers (Before 1962 : "Training Schools for Teachers of Home Economics and Trade Disciplines")	Training Schools for Female Kindergarten Teachers, for Educational Assistants for Female Handicraft Teachers.
1951	40	334
1955	36	205
1960	70	351
1965	70	530
1970	120	690
1975	130	790

It must be remembered that only a small proportion of all intermediate and secondary vocational teachers have attended the training schools which this table mentions.

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PREFACE

Le Comité du Personnel Scientifique et Technique de l'O.C.D.E. a témoigné un vif intérêt aux problèmes soulevés par l'offre et la demande de personnel enseignant. Ce dernier est vite apparu comme un élément fondamental du développement quantitatif et qualitatif du système d'enseignement. La recherche d'un équilibre entre l'offre et la demande de personnel enseignant nécessite la mise en oeuvre de politiques spécifiques de formation, de recrutement et d'utilisation intéressant l'un des secteurs les plus importants de la main-d'oeuvre hautement qualifiée.

A l'occasion d'études globales des "ressources en personnel scientifique et technique dans les pays de l'O.C.D.E." et de la "politique générale et de la planification en matière d'enseignement" dans de nombreux pays Membres et dans un rapport plus spécialement consacré aux "effectifs, au recrutement et à la formation des professeurs de sciences et de mathématiques", décidées par le Comité du Personnel Scientifique et Technique, certains aspects des problèmes soulevés par la demande et l'offre de personnel enseignant avaient été mis en lumière.

Afin de faire le point sur la situation du corps enseignant au niveau de l'enseignement primaire et secondaire tant du point de vue quantitatif que qualitatif, dans les années récentes et dans le futur, le Comité a décidé d'entreprendre une étude de synthèse reposant sur des données de base recueillies dans un certain nombre de pays Membres de l'O.C.D.E. et consignées dans des monographies nationales.

La présente monographie est la contribution des autorités grecques à la série d'études nationales consacrée à la formation, au recrutement et à l'utilisation des enseignants au niveau de l'enseignement primaire et secondaire. Elle a été préparée par les autorités grecques, en étroite collaboration avec le Secrétariat.

G. S. Papadopoulos
Chef de la Division Investissement et
Développement en matière
d'Enseignement

CHAPITRE I

FACTEURS INFLUENCANT L'OFFRE ET LA DEMANDE D'ENSEIGNANTS

I . Période 1955-1965

1) Facteur Population .

Le facteur principal qui influence l'offre et la demande d'enseignants est le nombre d'élèves, lequel est déterminé surtout par des facteurs démographiques. Les élèves ayant fait leurs études primaires au cours des années 1955-1965 sont nés en 1944-1959, ceux qui ont fait leurs études secondaires pendant la période 1955-1965 sont nés en 1937-1953.

Il n'existe pas de données séparées concernant l'évolution démographique (naissance, morts) de la population âgée de 6 à 18 ans. On peut pourtant se faire une idée des mouvements de population en général tels qu'ils ressortent du tableau suivant, avec le pourcentage de natalité ou de mortalité :

TABLEAU 1

MOUVEMENT DEMOGRAPHIQUE EN GRECE

Années	Naissances	Décès	Excédent[1] des naissances	Densité par km2
1937	26,2	15,0	11,2	54,1
1940	24,5	12,8	11,7	56,3
1950	20,0	7,1	12,9	58,4
1956	19,7	7,4	12,3	59,7
1959	19,4	7,4	12,0	62,6

---

(1) Le chiffre du pourcentage de prédominance des naissances n'est pas tout à fait net car on n'a pas tenu compte - par manque de données - du pourcentage des migrations. Il est à noter cependant que le courant des grandes migrations a commencé après 1956.

La prédominance des naissances marque l'accroissement correspondant de la population et par conséquent la croissance de la population d'âge scolaire. Le résultat de l'accroissement de la population est l'augmentation de la densité pour l'ensemble du pays. Sur ce point, il faut remarquer que la migration - tant à l'intérieur du pays qu'à l'extérieur - joue un grand rôle en ce qui concerne la formation de la population et sa densité. La migration interne (attraction des villes) déplace une grande proportion de la population rurale vers les centres urbains de sorte que la différenciation de densité entre la population rurale et la population urbaine est toujours variable (1). La conséquence en est l'existence d'écoles primaires à maître unique dans les régions rurales avec une faible proportion d'"élèves par maître" en comparaison des régions urbaines.

Un autre facteur qui contribue à la différence de densité de population entre ces régions (rurales-urbaines), c'est la migration externe qui prive le pays - et surtout les régions rurales et frontalières - d'un nombre important d'individus, abaissant ainsi le taux de croissance de la population. Indirectement cela diminue aussi le taux de mariages et de naissances et augmente le taux de mortalité - étant donné que la plus grande partie des émigrants se situe dans les limites d'âge 15-44 - en 1959 ceux-ci atteignaient 80 % du chiffre total.

Si l'on examine la composition des émigrants d'après leur âge, on verra que le taux des émigrants situés dans les limites d'âge 0-14 ans n'atteint que la proportion de 11% du total. On en conclut que la migration n'a pas une grande influence sur les effectifs d'élèves des écoles primaires mais agit défavorablement sur les effectifs de l'enseignement secondaire et technique.

---

(1) L'expansion extraordinaire des centres urbains d'Athènes, de Salonique et de Patras - pour ne citer que les plus grands - est due à l'attraction toujours croissante des villes.

En général les facteurs démographiques influencent tous les niveaux de l'enseignement, mais en ce qui concerne l'enseignement primaire la conséquence de l'évolution démographique est directe et totale car l'enseignement primaire est obligatoire.

2) Facteurs institutionnels

L'évolution de l'offre et de la demande d'enseignants est influencée non seulement par les facteurs démographiques mais aussi par les diverses lois et ordonnances (facteurs institutionnels). L'application plus stricte de la loi sur l'enseignement primaire obligatoire - grâce, surtout, aux cantines scolaires - a eu comme résultat la diminution de l'abandon des études (1) et l'augmentation des effectifs d'élèves.

a) Enseignement primaire

En Grèce, l'enseignement public prédomine au niveau des études primaires. En 1963, il n'y avait que 755 écoles privées, soit 7,48 % de l'ensemble des écoles primaires (10.088). Le total des écoles privées comprend les établissements appartenant à des minorités étrangères. Les communautés musulmanes de Thrace possèdent la plupart de ces écoles. Près de la moitié des écoles primaires se trouvent à Athènes.

Jusqu'à maintenant l'enseignement primaire d'une durée de 6 années, était obligatoire. Le décret 4.379/1964 prévoit une prolongation de la scolarité obligatoire de 6 à 9 années (de l'âge de cinq ans et demi à l'âge de quatorze ans et demi); cette réforme n'a pas encore été mise en oeuvre.

Tous les enseignants des écoles primaires (publiques et privées) sont qualifiés et employés à plein temps.

Il existe un petit nombre d'écoles primaires du soir pour analphabètes ou semi-analphabètes de plus de 14 ans.

---

(1) Voir à ce sujet la diminution des effectifs d'élèves allant à des écoles du soir - réduction de l'analphabétisme (Tableau 2)

Ecoles du soir

Les écoles du soir s'adressent à des personnes âgées de plus de 14 ans qui sont analphabètes ou qui n'ont pas terminé l'enseignement primaire. Ces écoles relèvent en général du secteur public. Les instituteurs des "écoles de jour" y donnentdes cours et reçoivent, à cet effet, une indemnité spéciale. La plupart de ces écoles du soir ont été créées dans les villes. Les effectifs de ces écoles du soir diminuent (voir tableau 2). Dans les écoles du soir publiques, le nombre des élèves est actuellement inférieur au tiers des effectifs de 1958. C'est une indication que l'application de la loi sur l'enseignement obligatoire commence à produire ses effets. Le recensement de 1961 a également permis de vérifier que le taux d'analphabétisme diminuait.Le pourcentage moyen d'analphabétisme est (pour toute la Grèce) de 17,7 % contre 24 % en 1951, mais la dispersion autour de cette moyenne est encore importante,par exemple en Eurytanie le taux de 32,72 %, à Rodope il est de 37,12 % tandis qu'il n'atteint que 9,8 % à Athènes.

Enseignement primaire

TABLEAU 2

ECOLES DU SOIR

a) Public	1958	1959	1960	1961	1962	1963	1965
Ecoles.	1097	752	873	996	763		583
Instituteurs	1254	832	962	1063	786		
Elèves	32332	18709	21992	21280	16491	14699	10531
Elèves par maître	27	22	23	20	21		

b) Privé	1958	1959	1960	1961	1962	1963	1965
Ecoles	56	70	71	66	62		60
Instituteurs	111	122	122	112	94		76
Elèves	3252	3939	4178	4095	3548	2924	3367
Elèves par maître	29	32	34	37	38		44

b) Enseignement secondaire général

La réforme de l'enseignement

La structure de l'enseignement secondaire général a été remodelée par la récente réforme scolaire. Instituée par le décret-loi 4379/1964, elle a commencé à être appliquée dès l'année 1964/1965.

Les principaux points de la réforme intéressant le secondaire général sont les suivants :

- L'école secondaire est divisée en deux cycles, le gymnase et le lycée comportant chacun trois classes qui n'ont pas de sections différenciées.

- La scolarité obligatoire est prolongée de 6 à 9 années d'études correspondant à l'école primaire et au gymnase d'enseignement général ou technique. La prolongation de la scolarité sera appliquée progressivement à mesure que les conditions nécessaires à son application seront réunies.

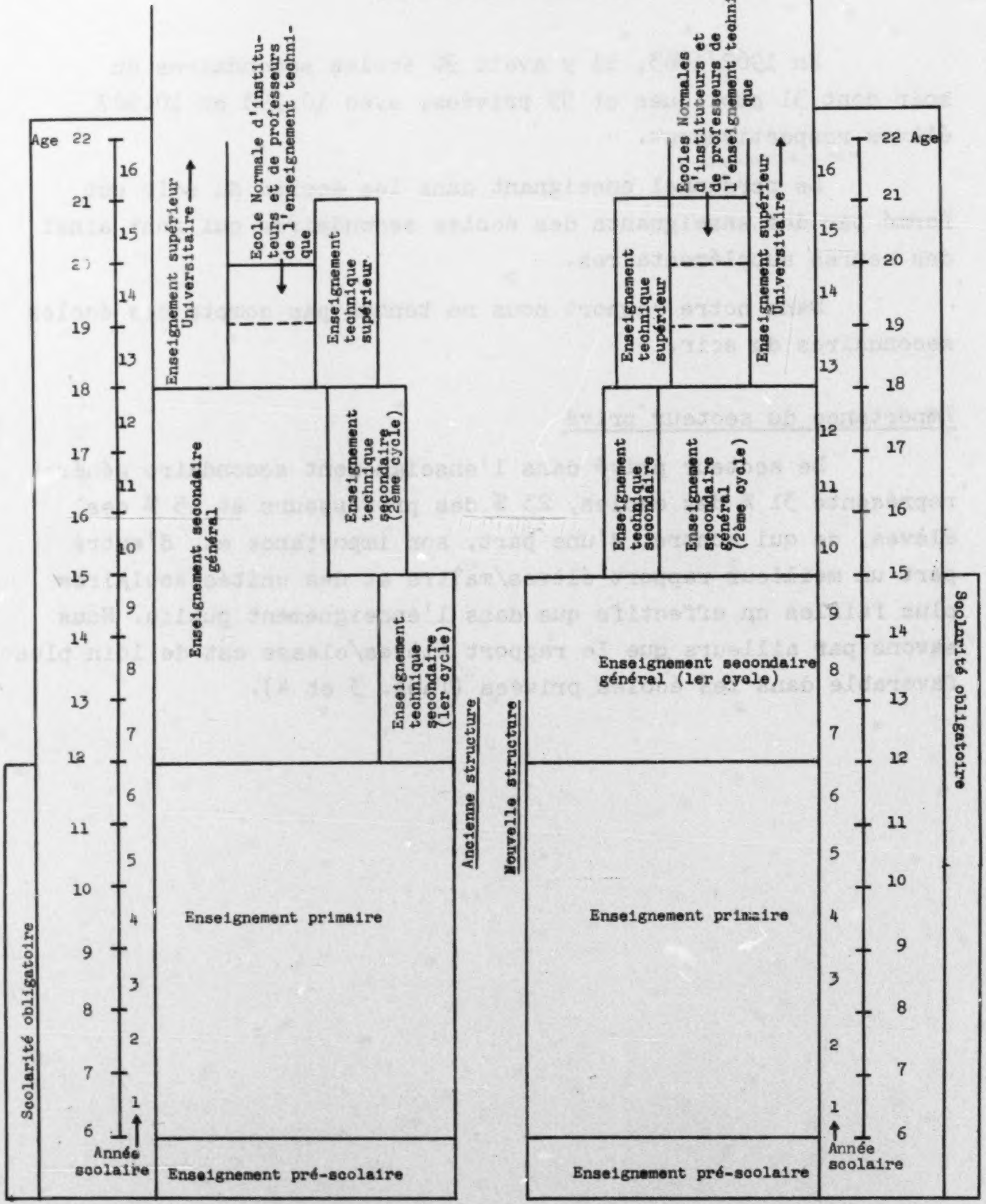
- Néanmoins, l'examen d'entrée au gymnase est déjà aboli, ce qui a entraîné en 1965/1966 une augmentation de 31 % des nouveaux inscrits en première année.

La gratuité de l'enseignement est instituée à tous les niveaux, supérieur compris, et différents frais secondaires engagés auparavant par les parents dans les écoles sont interdits.

Les écoles secondaires du soir

Des gymnases et lycées qui fonctionnent le soir sont destinés aux jeunes travailleurs désirant terminer leurs études secondaires. Le contenu des programmes est presque identique à celui des écoles du jour, mais, le nombre d'heures d'enseignement hebdomadaire étant réduit, la scolarité dans les écoles du soir comporte 7 années d'études, 3 années au gymnase et 4 années au lycée.

ORGANIGRAMME SIMPLIFIE DE L'ANCIENNE ET DE LA NOUVELLE STRUCTURE DE L'ENSEIGNEMENT EN GRECE


Age
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
Année scolaire
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Scolarité obligatoire
Enseignement supérieur Universitaire
Ecole Normale d'instituteurs et de professeurs de l'enseignement technique
Enseignement technique supérieur
Enseignement secondaire général
Enseignement technique secondaire (2ème cycle)
Enseignement technique secondaire (1er cycle)
Enseignement primaire
Enseignement pré-scolaire
Ancienne structure
Nouvelle structure
Ecoles Normales d'instituteurs et de professeurs de l'enseignement technique
Enseignement technique supérieur
Enseignement supérieur Universitaire
Enseignement technique secondaire
Enseignement secondaire général (2ème cycle)
Enseignement secondaire général (1er cycle)
Enseignement primaire
Enseignement pré-scolaire

▬ : examens ou concours d'entrée principaux

En 1962/1963, il y avait 90 écoles secondaires du soir dont 31 publiques et 59 privées, avec 10.193 et 10.927 élèves respectivement.

Le personnel enseignant dans les écoles du soir est formé par des enseignants des écoles secondaires qui font ainsi des heures supplémentaires.

Dans notre rapport nous ne tenons pas compte des écoles secondaires du soir.

Importance du secteur privé

Le secteur privé dans l'enseignement secondaire général représente 31 % des écoles, 23 % des professeurs et 15 % des élèves, ce qui montre, d'une part, son importance et, d'autre part un meilleur rapport élèves/maître et des unités scolaires plus faibles en effectifs que dans l'enseignement public. Nous savons par ailleurs que le rapport élèves/classe est de loin plus favorable dans les écoles privées (Tabl. 3 et 4).

Enseignement secondaire général

TABLEAU 3

IMPORTANCE DU SECTEUR PRIVE DANS L'ENSEIGNEMENT SECONDAIRE GENERAL

(Nombre d'écoles, d'enseignants et d'élèves et % du privé en 1963)

Ecoles			Enseignants			Elèves		
Total	Privé	Privé %	Total	Privé	Privé %	Total	Privé	Privé %
813	251	30,9	9.260	2.093 1)	22,6	284.462	43.068	15,1

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1) Aux 1.404 enseignants à temps plein, nous avons ajouté l'équivalent en professeurs (689) des heures dispensées par les enseignants à temps partiel (cf. tableaux 6 et 7).

Enseignement secondaire général

TABLEAU 4

PROPORTION DES ELEVES DES ECOLES SECONDAIRES PRIVEES DANS L'ENSEIGNEMENT SECONDAIRE GENERAL PAR SEXE ET PAR REGION GEOGRAPHIQUE (1963)

	Public et privé		Privé		% Privé	
	HF	F	HF	F	HF	F
Total de Grèce	284.462	128.001	43.068	18.904	15,1	14,8
Grand Athènes	82.743	42.005	21.519	10.268	26,0	24,4
Reste Grèce Centrale	27.404	10.802	1.330	428	4,9	4,0
Péloponèse	39.839	17.164	1.407	581	3,5	3,4
Iles Ioniennes	6.072	2.516	-	-	-	-
Epire	11.021	3.756	558	190	5,1	5,1
Thessalie	18.520	7.138	2.501	929	13,5	13,0
Macédoine	58.474	27.014	12.561	5.119	21,5	18,9
Thrace	6.822	3.026	408	122	6,0	4,0
Iles d'Egée	15.096	6.407	183	151	1,2	2,4
Crète	18.471	8.173	2.601	1.116	14,1	13,7

c) Enseignement secondaire technique et professionnel

Classification des écoles techniques et professionnelles

Les écoles techniques et professionnelles sont classées par le Service statistique du ministère de l'Education d'après le contenu des études dispensées en 7 catégories (1) :

1) Techniques
2) Agricoles
3) d'Enseignement ménager
4) Commerciales
5) Navales
6) de Services
7) Ecclésiastiques

Les écoles publiques dépendent de 9 ministères différents (qui peuvent s'occuper d'écoles de différentes catégories). Les écoles privées appartiennent à des personnes privées ou à certaines fondations, mais elles sont contrôlées par les ministères ou la fondation nationale royale.

Etant donné que les "écoles techniques" (voir Tableau 5) forment de loin la catégorie la plus importante, nous avons cru utile de présenter séparément les données les concernant. Les écoles techniques élémentaires recrutent au niveau du certificat de fin d'études de l'école primaire ; les écoles techniques moyennes recrutent généralement au niveau du certificat de la 3ème année de l'école secondaire. Les écoles de sous-ingénieurs, de niveau pas encore clairement défini, sont comprises dans les écoles techniques moyennes. Le projet de loi de réforme de l'enseignement technique les classe, au niveau du supérieur non-universitaire et exige comme condition d'inscription le diplôme de fin d'études de l'enseignement secondaire.

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(1) Nous n'avons pas tenu compte d'une huitième catégorie, celle des écoles artistiques. Elles recrutent des personnes qui, dans le cas où elles sont d'âge scolaire, poursuivent aussi généralement des études dans une école d'enseignement général (primaire ou secondaire). Il en est de même en ce qui concerne les élèves des instituts de langues étrangères.

Pour les quelques écoles agricoles où la durée des études varie de 1 à 4 ans, le certificat de fin d'études du primaire est exigé. Les autres dispensent des cours accélérés ou proposent des stages d'une durée de 1 à 3 mois à des jeunes et des adultes sans aucune condition scolaire d'admission.

Les écoles d'enseignement ménager recrutent au niveau du certificat de fin d'études du primaire. La durée des études varie de 1 à 5 années.

Les écoles commerciales, les écoles navales et la plupart des Ecoles de Services, d'une durée d'études variable suivant les sections, exigent comme condition d'admission le baccalauréat.

Les écoles ecclésiastiques sont des écoles secondaires d'enseignement général (d'une durée d'études de 7 ans) suivies de deux années de préparation spéciale à l'entrée dans le clergé.

Les écoles techniques et professionnelles fonctionnent en grande majorité le soir.

Enseignement technique et professionnel peu développé

Les écoles sont peu nombreuses, les effectifs faibles. L'enseignement professionnel plus spécialement est extrêmement réduit. En effet, la catégorie "écoles techniques", représente 62% des écoles, 85% des élèves et 75% du personnel enseignant.

Importance du secteur privé

L'enseignement technique et professionnel privé est d'une importance exceptionnelle. Il représente 47,5 % des écoles, 47 % des enseignants et le 70 % des élèves de l'enseignement technique, 54 % des écoles, 52 % des enseignants et 50 % des élèves de l'enseignement professionnel (Tableau 8). La proportion du privé est nettement plus élevée dans le Grand Athènes (Tableau 7).

TABLEAU 5

IMPORTANCE DES ECOLES TECHNIQUES

(Nombre d'écoles, d'élèves et d'enseignants, dans l'enseignement technique et professionnel et dans les écoles techniques pour les années 1959 à 1963)
(public et privé)

	Ecoles techniques et professionnelles			Ecoles Techniques			
	Nombre d'écoles	Nombre d'élèves	Nombre d'enseignants	Nombre d'écoles	Nombre (1) d'élèves H.F.	dont F.	Nombre d'enseignants
1959	225	44.894	3.013	104	30.714	426	1.738
1960	225	46.617	3.119	107	32.699	587	1.862
1961	223	48.868	3.333	106	34.430	669	2.031
1962	291	56.145	4.333	160	43.589	1966	2.875
1963	291	56.821	4.562	181	48.064	2071	3.415

Note

(1) En 1957 : H.F.: 25.569 dont F. 472, en 1958, H.F. 30.589 dont F. 579.

Enseignement technique et professionnel

TABLEAU 6

REPARTITION PAR SEXE DES ELEVES DES ECOLES PROFESSIONNELLES PUBLIQUES ET PRIVEES

Types d'écoles	Elèves			
	Total	H	F	% F
Agricoles	2.436	1.914	522	21,4
Commerciales	875	420	455	52,0
Ens. Ménager	1.611	-	1.611	100
Navales	305	305	-	0
Services	2.480	610	1.870	75,4
Ecclésiastiques	1.050	1.050	-	0
TOTAL	8.757	4.299	4.458	50,9

Tendances (1957-1963)

Développement récent :

Après une période de piétinement, l'enseignement technique et professionnel a présenté un progrès notable à partir de l'année 1962 (cf. tableau 5).

Particularités de ce développement

L'enseignement technique et professionnel se développe beaucoup plus rapidement dans le secteur public que dans le secteur privé. Cela dénoterait un effort accru de l'Etat qui tiendrait à assumer des responsabilités plus grandes en ce qui concerne la formation technique et professionnelle des jeunes (cf. tableau 7).

D'autre part, une tendance à la décentralisation se fait sentir. Le progrès est plus rapide en province que dans le Grand Athènes (cf. tableau 7).

3) Evolution de la demande d'enseignement

La demande d'enseignants en ce qui concerne l'enseignement primaire a marqué une croissance, d'une part parce que la population d'âge scolaire s'est accrue au cours de cette décennie, d'autre part parce qu'on a voulu abaisser la proportion d'"élèves par maître".

Il en est de même pour l'enseignement secondaire (général) où les effectifs d'enseignants se sont accrus. Le besoin d'un enseignement étendu sur un plus grand nombre d'années - conséquence d'un progrès continu - s'est fait sentir dans toutes les couches de la société - et, par suite, le nombre d'élèves ayant terminé l'école primaire et continuant leurs études au gymnase s'accroît continuellement.

L'accroissement est encore plus grand en ce qui concerne les élèves et les professeurs de l'enseignement secondaire technique, car la pénurie d'ouvriers qualifiés et de techniciens de niveau moyen - résultat du progrès technologique - pousse les jeunes vers les écoles techniques et professionnelles.

a) Enseignement primaire :

Normalement, au niveau de l'enseignement primaire, on pouvait espérer que le nombre des élèves aurait suivi l'évolution de la courbe démographique d'âge correspondant. Il en a été différemment. Pour toutes les années pour lesquelles on possède des données, le nombre des élèves dans les écoles publiques et privées est supérieur au chiffre du groupe d'âge correspondant. Ceci peut s'expliquer par l'accueil, dans les

TABLEAU 7

NOMBRE D'ECOLES TECHNIQUES PUBLIQUES ET PRIVEES POUR LA GRECE ET LE GRAND ATHENES (1962 et 1963)

	Total pour la Grèce				Dont dans le Grand Athènes						
					en chiffre absolu				en pourcentage		
	Total	Publiques	Privées	% Privées	Total	Publiques	Privées	% Privées	Total	Publiques	Privées
1962	160	78	82	51,25	69	25	44	63,8	43,1	32,1	53,7
1963	181	99	86	47,5	70	27	43	61,4	38,7	28,4	50

Enseignement technique et professionnel

TABLEAU 8

NOMBRE D'ECOLES PROFESSIONNELLES PUBLIQUES ET PRIVEES D'ENSEIGNANTS ET D'ELEVES PAR CATEGORIES D'ECOLES (1963)

Catégories d'écoles	Ecoles publiques			Ecoles Privées			Total			% privées		
	Ecoles	Enseignants	Elèves	Ecoles	Enseignants	Elèves	Ecoles	Enseignants	Elèves	Ecoles	Enseignants	Elèves
Agricoles	13	59	1.449	4	40	987	17	99	2.436	23,5	40,4	40,5
Commerciales	-	-	-	20	108	875	20	108	875	100	100	100
Ens. Ménager	3	36	305	16	142	1.306	19	178	1.611	84,2	79,8	81,1
Navales	4	62	305	-	-	-	4	62	305	-	-	-
Services	16	262	1.246	19	307	1.234	35	569	2.480	54,3	54	49,8
Ecclésiastiques	15	131	1.050	-	-	-	15	131	1.050	-	-	-
TOTAL	51	550	4.355	59	597	4.402	110	1.147	8.757	53,6	52	50,2

écoles primaires, d'élèves d'âge normal et d'élèves plus âgés. Ces derniers, dont le nombre figure au Tableau 9 se sont inscrits tardivement à l'école primaire ou ont redoublé certaines classes ; ce qui explique le phénomène signalé ci-dessus. Fort heureusement le nombre de ces élèves est en diminution depuis quelques années. En 1968, on a enregistré un accroissement de 40.000 élèves. Ceci s'explique en partie par la fixation à 5 ans 1/2 (au lieu de 6 ans) de la limite d'âge (inférieure) permettant de s'inscrire à l'école ; ce nouveau groupe d'élèves dépasse de plus de 20 % l'effectif normal des nouveaux inscrits.

(b) Enseignement secondaire général

La population d'âge correspondant comprend des jeunes de 12 à 17 ans révolus. Dans la comparaison des chiffres des effectifs scolaires et de la population d'âge correspondant, il importe de tenir compte du fait qu'un certain nombre d'élèves en retard ont plus de 18 ans.

L'évolution des chiffres montre que le nombre des élèves est en augmentation constante, tant dans le public que dans le privé et que la proportion des jeunes poursuivant des études secondaires générales a elle aussi augmenté.

(c) Enseignement secondaire technique et professionnel

La population d'âge correspondant comprend les jeunes de 12 à 17 ans révolus. Mais il faudrait tenir compte du fait qu'une partie importante des effectifs des écoles techniques et professionnelles est fournie par des jeunes âgés de 18 ans et plus. Ainsi, pour l'année 1963, il n'y a que 34.720 élèves qui ont entre 12 et 17 ans, ce qui correspond aux 4 % des mêmes classes d'âge.

TABLEAU 9

ELEVES D'AGE NORMAL ET ELEVES EN RETARD DANS L'ENSEIGNEMENT PRIMAIRE (PUBLIC ET PRIVE) POUR LES ANNEES 1955, 1960,1961, 1962

	Effectifs			Population d'âge correspondant
	d'âge normal	en retard	Total	
1955	834.000	100.813	943.813	859.000
1960	832.319	68.842	901.161	827.869
1961	833.677	74.137	907.814	865.320
1962	838.156	72.938	911.094	866.610

II - Période 1965-1975

1) Facteur Population

Les élèves des écoles primaires de cette période correspondent aux enfants nés de 1953 à 1970, ceux des écoles secondaires aux enfants nés de 1947 à 1963. L'évolution démographique au cours de la période 1949-1970 se présente comme suit :

TABLEAU 10

EVOLUTION DE L'EXCEDENT DES NAISSANCES

Années	Naissances	Décès	Excédent des naissances
1949 (1)	18,6	7,9	10,7
1950	20,0	7,1	12,9
1955	19,4	6,9	9,5
1960-1965 (2)	18,1	8,8	9,3
1965-1970 (2)	16,9	8,8	7,1

(1) Il n'existe pas de données statistiques pour l'année 1947.

(2) Ces données sont tirées de "Demographic trends and population projections of Greece 1960-1985, National Statistical Service, Athens 1966 Z. Methodological Studies".

Il résulte de ces données que, selon les tendances de natalité et de mortalité, la population du pays s'accroîtra à un rythme plus lent même si l'on ne tient pas compte de la migration. Il en sera de même de la densité de la population.

Cette évolution démographique influencera surtout l'école primaire tandis que ses conséquences ne se feront sentir sur l'enseignement du second degré qu'au cours de la période 1965-1975.

2) Facteurs institutionnels

La réforme de l'enseignement, ayant prolongé l'enseignement obligatoire pendant neuf ans et ayant supprimé les examens d'entrée au gymnase, contribuera à l'augmentation considérable des effectifs d'élèves du gymnase - puisque le nombre d'élèves ayant terminé l'école primaire ira de pair avec celui des élèves s'inscrivant au gymnase. La conséquence directe en sera une demande accrue de personnel enseignant du secondaire. L'enseignement gratuit contribuera à la diminution de l'abandon des études en ce qui concerne les élèves du gymnase, à la continuation des études au lycée pour les élèves qui auront terminé le gymnase et à l'introduction de nouvelles matières au programme du lycée (par exemple l'économie politique, la sociologie, les éléments de régime démocratique et de droit),ce qui nécessitera un personnel enseignant spécialisé.

Quant à l'enseignement technique, le projet de loi "de l'enseignement technique" prévoit l'augmentation des heures hebdomadaires d'enseignement des matières théoriques (mathématiques, grec etc.) et aura pour conséquence l'augmentation du personnel enseignant appartenant à ces spécialités.

a) Enseignement secondaire général

L'augmentation des effectifs des écoles publiques est due, pour la plus grande part, non au développement démographique, mais à d'autres facteurs tenant à la continuation de l'application de la réforme de l'enseignement général :

1. La suppression des examens d'entrée au gymnase, réalisée depuis l'année scolaire écoulée, 1965-1966, a contribué à l'augmentation du nombre d'élèves inscrits en première classe du gymnase dans une proportion de 25 % environ (en 1964, 47 % des élèves ayant terminé leurs études primaires se sont inscrits au gymnase tandis qu'en 1965-1966, le pourcentage a atteint le chiffre de 72).

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2. L'institution des cantines scolaires ainsi que leur extension restreindra le pourcentage de départs d'élèves.

3. La gratuité de l'enseignement.

4. La scolarité obligatoire (elle sera bientôt appliquée).

b) Le projet de loi sur l'enseignement technique et professionnel

Le projet de loi sur l'enseignement technique et professionnel, qui est à l'étude au Ministère de l'Education, en plus de l'introduction progressive de matières technologiques dans les écoles secondaires générales du 1er cycle (Gymnases), prévoit trois filières d'études techniques ou professionnelles : l'enseignement technique, l'enseignement commercial et l'enseignement agricole.

A. Enseignement technique

I. Ecoles techniques

1. Ecoles techniques de 1er degré.

Conditions d'admission : certificat de fin d'études du gymnase et concours d'entrée si le nombre des candidats dépasse celui des places disponibles.

Durée d'études : de 3 à 6 semestres.

2. Ecoles techniques du 2ème degré.

Conditions d'admission : diplôme de la même spécialité d'une école technique ou d'une école d'apprentissage du 1er degré.

Durée d'études : de 3 à 6 semestres.

3. Lycée technique

Conditions d'admission : certificat de fin d'études du gymnase et examen d'entrée.

Durée d'études : 3 années (4 pour les écoles du soir).

4. Ecoles techniques supérieures

Conditions d'admission : diplôme de fin d'études de l'enseignement secondaire général ou d'une école technique du 2ème degré.

Durée d'études : 3 années.

II. Système d'apprentissage

1. Ecoles d'apprentissage du 1er degré

Conditions d'admission : certificat de fin d'études du gymnase.

Durée d'études : 3 ou 4 années.

2. Ecoles d'apprentissage du 2ème degré

Conditions d'admission : diplôme de fin d'études du lycée technique ou des écoles techniques du 2ème degré.

Durée d'études : 1 année.

B. Enseignement commercial

1. Ecoles commerciales du 1er degré

Conditions d'admission : les mêmes que pour les écoles techniques du 1er degré.

Durée d'études : 2 ou 3 années.

2. Lycée commercial

Conditions d'admission : les mêmes que pour les lycées techniques.

Durée d'études : la même que pour les lycées techniques.

3. Ecoles supérieures commerciales

Conditions d'admission : diplôme de fin d'études d'un lycée d'enseignement général ou commercial et examen d'entrée.

Durée d'études : de 1 à 2 années.

C. Enseignement agricole

1. Ecoles agricoles du 1er degré

Conditions d'admission : certificat de fin d'études du gymnase.

Durée d'études : 2 à 4 semestres.

2. Lycée agricole

Conditions d'admission : certificat de fin d'études du gymnase et concours d'entrée.

Durée d'études : 3 ou 4 années.

3. Ecoles supérieures agricoles

Conditions d'admission :diplôme de fin d'études d'un lycée d'enseignement général, technique ou professionnel.

Durée d'études : 2 ou 3 années.

D. Des possibilités de passages verticaux et horizontaux sont prévues entre les différents niveaux et les 4 filières de l'enseignement secondaire (général, technique, commercial et agricole).

E. Période transitoire

Les écoles existantes s'adapteront progressivement au système prévu par le projet de loi.

Des transformations s'effectueront - notamment une certaine restriction de l'enseignement secondaire général au profit du technique et du professionnel - et de nouvelles écoles seront créées.

3) Evolution de la demande d'enseignement

a) Enseignement primaire

Jusqu'en 1970 le nombre des élèves de l'enseignement primaire augmentera. Ensuite, on s'attend à une diminution de leur nombre(1) qui sera plus forte pour les écoles privées. Bien que les effectifs de l'enseignement primaire n'appartiennent pas à la population active, on doit souligner que les phénomènes migratoires les affectent indirectement, soit à cause de migrations familiales soit parce que des jeunes gens partent à l'étranger et y créent une famille.

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1) G.Siampos : "Demographic Development in Greece". Athens,1962.

b) Enseignement secondaire général

On prévoit une augmentation des effectifs des écoles publiques et une diminution correspondante des effectifs des écoles privées.

Pour l'estimation des effectifs d'élèves du gymnase, on a déterminé le nombre d'élèves ayant terminé l'école primaire et on a tenu compte du pourcentage des élèves qui continuent leurs études au gymnase ainsi que du nombre des élèves qui interrompent leurs études aux différentes classes (passage de la classe A à la classe B, et de B à C). Pour les années 1975, 1980, on a considéré la scolarité obligatoire dans le gymnase prévue par la Loi relative à la réforme de l'enseignement, comme étant réalisée et les effectifs d'élèves du gymnase seront alors déterminés par le développement démographique. En ce qui concerne l'estimation des élèves du lycée, on a tenu compte des anciennes tendances telles qu'elles se sont manifestées dans les trois dernières classes des anciens gymnases.

Pour les écoles privées, on prévoit que la diminution des effectifs se poursuivra (en 1965-66 elle a atteint 49 % environ du nombre total d'élèves), mais à un rythme plus lent que pour 1965-1966 et à condition que le fonctionnement des écoles publiques continue d'être amélioré.

CHAPITRE II
EVOLUTION DE LA DEMANDE ET DE L'OFFRE D'ENSEIGNANTS

I. Période 1955-1965

Au cours de la période 1955-1965 il y a eu une demande accrue d'enseignants à tous les niveaux, tant pour faire face à l'augmentation des effectifs d'élèves - de l'enseignement secondaire et technique surtout - que pour abaisser la proportion d'élèves par maître.

1) Enseignement primaire

Dans l'enseignement du premier degré, on compte 26.623 instituteurs en 1963 contre 17.533 instituteurs en 1955 dans les écoles publiques. Pour les écoles privées, on note un accroissement d'instituteurs, suivi par une diminution qui s'est encore accentuée après l'entrée en vigueur de la réforme de l'enseignement. L'offre de maîtres du premier degré marque une régression au cours de cette décennie. Mais comme, dans le courant de 1966 on comptait 3.000 maîtres environ qui n'avaient pas reçu de nomination, il n'y aura pas de problème d'offre puisque ce nombre sera suffisant pour couvrir les besoins. Les nominations d'instituteurs ont un cours irrégulier (fluctuations brusques) car elles se font surtout en fonction de la situation politique et des objectifs de chaque gouvernement et moins selon les besoins de l'enseignement.

L'accroissement rapide du nombre des maîtres de 1955 à 1963 (voir Tableau Ia -Annexe III) reflète l'accroissement des effectifs scolaires (Tableau III-Annexe III) et les efforts visant à améliorer le rapport maîtres/élèves. Ainsi, ce rapport est passé de 51 élèves par maître en 1955 à 38,5 en 1963 et on espère encore l'améliorer dans un proche avenir.

Le nombre des instituteurs dans l'enseignement public a également été influencé par la diminution du nombre des instituteurs enseignant dans les écoles privées (ce phénomène apparait clairement en 1966 et se poursuivra dans le futur (en 1970-1980 voir Tableau Ia et Ib - Annexe III) qui a pour cause la diminution du nombre des élèves des écoles privées. Ceci s'explique par

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l'amélioration apportée dans l'enseignement primaire par les réformes. Les écoles primaires privées ont enregistré une diminution du nombre de leurs élèves, ce qui a entraîné une diminution de leur corps enseignant. Récemment, les enseignants des écoles privées ont réclamé par l'intermédiaire de leur association le statut de fonctionnaires qui est celui de leurs collègues de l'enseignement public. Si cette requête est acceptée, bon nombre d'entre eux intègreront les écoles publiques.

Age du personnel enseignant :

La répartition par âge des enseignants apparaît normale, qu'on l'examine pour le total hommes plus femmes ou par sexe (voir Tableau IIa - Annexe III). Le mode se situe dans le groupe d'âge 35-44, la moyenne se situant à 38,80 et l'écart-type à 10,01. La moyenne d'âge des hommes est de 39,48 et des femmes 37,97. Cette différence n'est pas significative.

La répartition par âge des instituteurs des écoles privées (Tableau IIb - Annexe III), indique également une distribution normale, la moyenne étant de 35,50 et l'écart-type de 10,70. La différence de 3,30 entre les moyennes est significative, statistiquement (t = 10,3). Ceci s'explique par un emploi plus important de femmes que d'hommes dans les écoles privées ; ces femmes sont employées très jeunes et de plus, les hommes doivent tout d'abord effectuer leur service militaire.

Les flux d'enseignants :

Le Tableau VI (Annexe III) présente la fréquence des départs de la profession pour la période 1955-1965 et les estimations pour le futur. Sauf pour les années 1958, 1960 et 1964, la variation d'une année sur l'autre est très faible. Les instituteurs des écoles publiques sont nommés par le Ministère de l'Education. Le nombre des nouveaux entrants varie d'une année sur l'autre, (Tableau IV - Annexe III) le chiffre le plus fort ayant été enregistré en 1963 (Tableau 16). L'offre d'enseignants étant toujours élevée, les nominations sont déterminées par la politique en matière d'enseignement et la politique économique du gouvernement. Les diplômés des écoles normales attendent généralement trois années en plus avant d'obtenir un poste. Ce n'est, par exemple qu'en 1966 que sont nommés des diplômés de 1963. En tout état de cause, le nombre des nominations est inférieur au nombre de diplomés des écoles normales.

Pendant la première partie de la période étudiée, le nombre des "ré-entrants" a été très faible. Les 127 "ré-entrants" sont, dans leur majorité, des enseignants qui avaient été déchus de leur fonction pour des raisons politiques, après la guerre civile. C'est pourquoi la plupart d'entre eux est du sexe masculin. Le nombre des enseignants qui refusent le poste qui leur est offert varie avec les caractéristiques annuelles des nominations (tableau 12). La plupart des enseignants qui n'acceptent pas les postes proposés sont des femmes qui ne peuvent, pour des raisons familiales, s'éloigner de leur domicile. En 1955, les refus de postes étaient de 4 % du total des postes offerts, ils atteignaient 17 % en 1963.

Les nominations d'enseignants dans les écoles privées sont réglées par un contrat privé ; le Ministère de l'Education donne son accord à ces nominations. Aucune donnée numérique n'est disponible.

2) Enseignement secondaire général :

Dans l'enseignement secondaire général, on note aussi un accroissement de la demande de personnel enseignant (7.167 professeurs de gymnases publics en 1963 contre 5.432 en 1955). Si l'on considère les différentes branches, la demande de personnel enseignant se fait sentir davantage en ce qui concerne les spécialités des mathématiques, de la physique et des langues vivantes que pour les spécialités des professeurs de littérature, de théologie, et l'offre y est insuffisante. Une question importante est la suivante : "Quelle devrait être l'offre d'enseignants de la spécialité des mathématiques, des sciences physiques et de langues étrangères afin de faire face à la pénurie actuelle et d'assurer des effectifs suffisants de professeurs pour l'avenir ?" On pourrait y donner la réponse suivante : "Il faudrait augmenter le nombre des étudiants admis à l'entrée dans les facultés préparant les futurs professeurs". Cependant, pour appliquer cette mesure, il faudrait organiser au préalable de nouvelles unités universitaires, les équiper en laboratoires et recruter le personnel scientifique compétent. Une mesure générale serait d'accorder aux enseignants des appointements élevés afin de rehausser le prestige de leur profession et d'y attirer les jeunes diplômés - les licenciés de mathématiques et de sciences physiques surtout, qui préfèrent s'occuper à d'autres travaux, dans l'industrie par exemple.

Augmentation du nombre des enseignants

Ecoles publiques

Après une immobilité relative de 1955 à 1960, nous assistons à une augmentation rapide du nombre des enseignants à partir de 1961 dans toutes les catégories de disciplines, nettement plus marquée chez les femmes.

Ecoles privées

Le nombre des enseignants occupés dans l'enseignement privé (à plein temps ou à temps partiel) est en augmentation constante depuis 1955.

Age des enseignants

1. Le gros du corps des enseignants se place dans les limites de 30 à 44 ans.

2. Les enseignants du privé sont relativement plus âgés que ceux du public. Cela s'explique en partie par le fait qu'un certain nombre de retraités du public enseignent dans le privé.

Les difficultés à pourvoir les postes d'enseignants était dues depuis 1950 plutôt au manque de crédits pour la création des postes nécessaires qu'au manque de candidats. Le grand nombre de nominations des dernières années, surtout dans le secondaire général, a réduit le décalage entre besoins en postes et enseignants en exercice, mais le secondaire continue à manquer de professeurs, surtout en sciences où les candidatures se font rares, les licenciés en sciences préférant se diriger vers d'autres secteurs d'activité que l'enseignement. Il n'y a pas non plus d'offre suffisante de professeurs de langues qualifiés.

Enseignement primaire

TABLEAU 11

COMPARAISON DU NOMBRE DE DIPLOMES DES ECOLES NORMALES ET DE CEUX INTEGRANT LA PROFESSION ENSEIGNANTE

	1956	1960	1962	1963	1964
Diplômés des Ecoles normales	1.388	1.128	988	1.240	1.422
Diplômés intégrant la profession enseignante	784	1.126	1.509	2.496	1.587

Enseignement primaire

TABLEAU 12

REFUS DE NOMINATION PENDANT LA PERIODE 1955-1965

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Hommes	6	13	19	16	43	28	20	43	117	73	73
Femmes	39	24	141	93	208	133	89	209	404	163	104
Total	45	37	160	109	251	166	109	252	521	236	177

Etudiants se destinant à la profession enseignante

Les facultés universitaires et les écoles supérieures non universitaires d'où proviennent les professeurs de l'enseignement secondaire général ne préparent pas spécialement à l'enseignement, qui n'est qu'un des débouchés possibles pour les licenciés et diplômés. Ainsi, nous ne pouvons pas avoir de chiffres sur le nombre de ceux qui choisissent le professorat.

Les chiffres du tableau 11 (Annexe III, II : enseignement secondaire général) concernent uniquement les facultés et écoles délivrant des titres permettant d'enseigner dans le secondaire général. Dans la catégorie "Sciences" nous comprenons les facultés des sciences des universités d'Athènes et de Salonique (sections de radiotechnique et de pharmacie non comprises), dans la catégorie "Humanités" les facultés des lettres des universités d'Athènes et de Salonique et dans la catégorie "Autres disciplines" les facultés de théologie des universités d'Athènes et de Salonique, l'Ecole supérieure des Beaux-Arts et l'Ecole supérieure d'Education physique. Nous n'avons pas inclus les deux écoles supérieures ménagères (200 enseignants dans les écoles publiques en décembre 1965 et 1.005 autres qui attendent leur nomination) ni l'Ecole supérieure des Sciences économiques et commerciales fréquentée par un nombre important d'étudiants dont une faible proportion entre dans l'enseignement (78 spécialistes de l'enseignement commercial dans les écoles publiques en décembre 1965 et 384 autres ayant posé leur candidature).

Toutes ces facultés et écoles supérieures appartiennent à l'enseignement public.

Le tableau 11 (Annexe III, II : enseignement secondaire général) révèle une augmentation des chiffres dans les Humanités et surtout dans les Sciences où les nouvelles admissions ont plus que doublé de 1956 à 1963. La nette diminution des chiffres dans les autres disciplines est due principalement à une restriction du nombre des admissions dans les facultés de Théologie à partir surtout de l'année scolaire 1961/1962. Rappelons que 1.043 théologiens attendent leur nomination, les plus anciennes candidatures datant précisément de 1961.

Les jeunes filles atteignent la majorité absolue dans les facultés des Lettres et ne présentent qu'une faible proportion des effectifs dans les facultés des Sciences. Il semble qu'il y ait une distinction très nette dans l'image que se font parents et intéressés des métiers "masculins" et "féminins".

3) Enseignement secondaire, technique et professionnel

Dans l'enseignement technique, on constate une demande accrue d'enseignants au cours de la décennie 1955-1965 (en 1959, on comptait 3.013 professeurs nommés à temps partiel - en 1963 : 4.562). Le problème vital en ce qui concerne l'enseignement technique est la nomination d'un personnel enseignant permanent à plein temps, personnel qui devrait avoir reçu aussi une formation pédagogique.

II. Période 1965/1975

On prévoit que l'évolution de la demande d'enseignants prendra la forme suivante :

Augmentation du nombre de maîtres du primaire afin de faire face à l'accroissement des effectifs.

Augmentation du nombre de professeurs du secondaire, en ce qui concerne surtout les professeurs de mathématiques, de sciences physiques, de langues étrangères et nomination de nouveaux professeurs pour l'enseignement des nouvelles matières introduites au programme.

Enfin, augmentation du nombre de professeurs du technique afin de faire face à l'accroissement du nombre des élèves.

1) Enseignement primaire

Dans l'enseignement primaire, la demande d'enseignants sera encore accrue pour les raisons déjà exposées en ce qui concernait la période 1955-1965. Quant à l'offre d'enseignants elle se maintiendra à peu près aux mêmes niveaux.

Les estimations faites pour le futur indiquent un accroissement du nombre des nominations à effectuer pendant la période 1966/1970 et une légère diminution ensuite. Ceci correspond à l'évolution prévue du nombre des élèves.

Le nombre des enseignants en 1970, sera, selon nos calculs, de 28.500, ce chiffre sera dépassé si le rapport maîtres/élèves de 30/1 proposé dans le Plan Quinquennal, est effectivement appliqué.

On estime que dans les prochaines dix années, les départs annuels augmenteront légèrement mais sans comparaison aucune avec le nombre prévu de nominations.

2) Enseignement secondaire général

Dans l'enseignement secondaire général, la demande d'enseignants présentera un accroissement important vu l'allongement de la scolarité obligatoire (neuf années). De plus, la séparation des études du second degré en deux cycles (gymnase-lycée) créera un besoin accru d'enseignants. La demande se fera sentir davantage pour les professeurs spécialisés en mathématiques, en sciences physiques et en langues étrangères car les postes déjà vacants se multiplieront. L'introduction de nouvelles disciplines au programme, par exemple l'économie politique, la sociologie et les éléments de régime démocratique provoque une demande de personnel enseignant spécialisé en conséquence. Si nous supposons que le nombre de candidats admis dans le supérieur sera accru, il en résultera une offre accrue d'enseignants. La création de nouveaux établissements universitaires tels que ceux de Patras et de Jannina- pour les mathématiques surtout - contribuera à l'augmentation du nombre de diplômés de langue et de sciencess dont une partie se dirigera vers l'enseignement du second degré. Ainsi, les problèmes auxquels on a dû faire face au cours de la période 1955-1965 continueront de se présenter - quoique à un degré plus faible - au cours de la période 1965-1975.

L'augmentation des effectifs d'élèves des gymnases et lycées publics nécessitera l'augmentation correspondante des membres du personnel enseignant. Cet accroissement devra être plus que proportionnel pour les professeurs de mathématiques, de physique et de langues vivantes afin de couvrir aussi les postes actuellement vacants (625 postes vacants environ en 1966 pour toutes les spécialités mentionnées). Dans l'estimation des effectifs du personnel enseignant, on a tenu compte du nombre des élèves en même temps que de celui des gymnases-lycées[1] et des postes vacants de professeurs. Cette estimation est globale pour les gymnases et lycées car les professeurs de certaines spécialités enseignent dans les deux types d'école.

L'augmentation des effectifs du personnel enseignant prévue pour 1975/1980 est encore accrue du fait que - outre les facteurs déjà mentionnés - de nouvelles disciplines technologiques seront enseignées tant au gymnase qu'au lycée ainsi que des disciplines théoriques au lycée (éléments d'économie politique, de sociologie, etc...), conformément à la loi relative à la réforme de l'enseignement. Une restructuration des programmes aura donc lieu, et il est par conséquent impossible de déterminer quantitativement les effectifs du personnel enseignant.

Quant au personnel des écoles privées, il a été considéré comme personnel de plein emploi et les prévisions ont été réalisées sur la base des effectifs d'élèves et le rapport des spécialités par école.

On prévoit une augmentation des effectifs d'étudiants qui s'inscriront à la faculté des Sciences d'une part parce que les besoins de l'enseignement en ce qui concerne ces spécialités sont grands et que, d'autre part, la Grèce se trouve en plein stade de développement technologique. La création de la faculté des Mathématiques à l'Université de Jannina en 1967 (on prévoit l'inscription de 200 étudiants environ) ainsi que celle de l'Université de Patras (on prévoit l'inscription de 200 étudiants environ à la section préparatoire) constituent un pas positif en avant et permettront de faire face aux demandes accrues dans ce domaine.

Quant aux sciences théoriques (humanités), on prévoit aussi une augmentation des inscriptions étant donné que, en 1966, tous les licenciés sortant de l'Université ont pu être nommés à des postes publics. Les prévisions ont été faites sur la base des tendances des années précédentes et compte tenu des nouvelles Universités de Jannina et de Patras.

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[1] Citons, à titre d'information, que diverses préfectures ont demandé en 1966 la création de 380 gymnases et de 80 lycées pour lesquels il faudra en principe 2 750 professeurs environ de toutes les spécialités.

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En ce qui concerne les autres spécialités (professeurs d'histoire religieuse, de culture physique, de travaux artistiques), le nombre des étudiants inscrits en 1975 se maintiendra au même niveau que précédemment, avec une légère augmentation.

On prévoit une augmentation des licenciés sortant de l'université pour les sections sciences et lettres et une diminution en ce qui concerne les autres spécialités. Pour l'estimation du nombre des diplômés, on a tenu compte des données des années antérieures adaptées aux conditions actuelles.

3) Enseignement secondaire, technique et professionnel

Dans l'enseignement technique, il y aura une demande accrue d'enseignants. Le progrès technologique crée des besoins et il faudra intensifier l'enseignement du second degré ainsi que l'enseignement supérieur. Les problèmes qui se présenteront relativement à l'enseignement technique seront la nomination d'un personnel enseignant permanent à temps plein en ce qui concerne les professeurs qui enseignent les disciplines technologiques dans les écoles techniques. Dans ce domaine la SELETE (Ecole de formation du personnel de l'enseignement technique et professionnel) contribue d'une manière positive à la formation des professeurs, mais les effectifs ainsi formés ne sont pas suffisants en comparaison des besoins existants.

On prévoit que les effectifs d'élèves des écoles techniques et professionnelles présenteront une augmentation conformément aux tendances antérieures (Tableau XIIIa- Annexe III). On notera une augmentation similaire du personnel enseignant qui ne travaille actuellement qu'à temps partiel puisqu'il y a pénurie de professeurs de mathématiques et de sciences même dans les écoles de l'enseignement secondaire général. Cette pénurie se fera encore sentir, d'une part, à cause du nombre accru d'élèves, et, d'autre part, parce que les professeurs enseignant les disciplines technologiques ne désirent pas être liés par un travail à plein temps.

Les écoles techniques continueront à dispenser - pour la plus grande part - l'enseignement technique et professionnel (Tableau XIIIa-Annexe III). La participation d'étudiants et de professeurs de sexe féminin continuera d'être très faible.

Pour les années 1975/1980, on prévoit une augmentation considérable des effectifs d'élèves, créant le besoin de membres du personnel enseignant en nombre accru. Néanmoins, il n'est pas possible d'en prévoir le nombre, car on projette la restructuration de l'enseignement technique et professionnel sur de nouvelles bases dont les points principaux sont les suivants :

1. La création de trois degrés de l'enseignement technique correspondant aux trois secteurs de l'activité économique (primaire, secondaire, tertiaire).

2. La composition différente des programmes avec une augmentation des périodes hebdomadaires d'enseignement théorique des mathématiques, de la physique, de la chimie, du grec, des langues étrangères, etc...

3. La permanence du personnel enseignant les disciplines théoriques aussi bien que les matières d'enseignement pratique.

Pour que l'enseignement technique et professionnel avec sa nouvelle structure puisse être appliqué, il faudra réaliser pleinement la scolarité obligatoire étendue à neuf années et s'assurer du personnel compétent pour l'enseignement des disciplines technologiques.

CHAPITRE III

POLITIQUE DE FORMATION DES ENSEIGNANTS

I. Type de Formation Reçue et Fonctionnement des Instituts de Formation

1) Enseignement primaire

Les instituteurs sont formés dans les écoles normales (académies pédagogiques). Elles sont au nombre de 14 en Grèce, dont trois n'accueillent que des filles ; les autres écoles normales sont mixtes. Douze écoles sont publiques et gratuites, les deux autres (pour filles) appartiennent à une organisation privée et sont payantes. Ces deux dernières écoles fonctionnent selon les règles édictées par le ministère de l'Education, qui les contrôle. Le diplôme qu'elles délivrent est reconnu par l'Etat.

Pendant les années 1960-1964, le nombre des nouveaux admis a varié de 1200 à 1400 environ (Tableau 13). Il n'y a pas de grande différence entre le nombre d'"entrants" et le nombre de diplômés à l'issue du cycle de formation, les abandons et les démissions étant très rares. Sauf quelques exceptions, les diplômés des écoles normales d'instituteurs intègrent la profession enseignante (contrairement aux diplômés des universités qui ont d'ailleurs reçu une formation beaucoup plus large). Les estimations en ce qui concerne le proche avenir indiquent une augmentation des inscriptions à partir de 1968. En effet, à ce moment, le cycle de formation de 3 années sera définitivement en place.

Il y aura une différence entre le nombre de diplômés et le nombre de ceux intégrant la profession enseignante en 1967, année au cours de laquelle aucun diplôme ne sera délivré suite à la prolongation des études de 2 à 3 ans dans les écoles normales. Les élèves entrés en 1965/1966 ne seront en effet diplômés qu'en 1967/1968 au lieu de 1966/1967. On espère que ce décalage permettra de mieux équilibrer l'offre et la demande d'enseignants et qu'en particulier, les diplômés n'auront pas à attendre 3 ans ou plus, une nomination.

Au total, il n'y a pas de problème d'effectifs, les candidats aux écoles normales étant toujours suffisamment nombreux (cf. Tableau 13).

TABLEAU 13

RESULTATS DE L'EXAMEN D'ENTREE DANS LES ECOLES NORMALES D'INSTITUTEURS DE 1955 A 1961

Années	Présentés	admis	% admis	Réussites en surnombre	% Réussites en surnombre	Recalés
1954/55	6.200	1.196	19,3	836	13,5	4.168
1955/56	6.488	1.330	20,5	1.295	20	3.863
1956/57	6.185	1.024	16,6	1.800	29,1	3.361
1957/58	4.873	1.109	22,8	1.426	29,3	2.338
1958/59	4.684	1.095	23,4	1.104	23,6	2.485
1959/60	4.353	1.246	28,6	1.371	31,5	1.736
1960/61	4.675	884	18,9	1.543	33	2.248

- Niveau des Instituts de formation des enseignants du primaire

Les Instituts de formation des enseignants du primaire ("académies pédagogiques") se situent au niveau supérieur non-universitaire.

- Objectifs des programmes dans les "académies pédagogiques"

La réforme de l'enseignement promulguée par le décret-loi 4379/1964 ayant porté la durée des études dans les académies pédagogiques de 2 à 3 années, les programmes de ces établissements ont été remodelés. Le nouveau régime est appliqué aux étudiants admis en 1ère année en 1965/1966. L'insuffisance de la formation antérieure et la réforme des programmes de l'enseignement primaire ont été à l'origine de ces modifications.

Cette mesure aura une influence décisive sur l'amélioration de l'enseignement de base ainsi qu'une répercussion incontestable sur les programmes de formation des adultes à la campagne. L'instituteur, très souvent d'origine paysanne, et vivant de longues années parmi les paysans, bénéficie auprès d'eux d'un prestige considérable. Ce rayonnement des instituteurs, renforcé d'une formation adéquate dans l'économie agricole moderne, rend plus facile l'adoption de moyens techniques et de procédés scientifiques dans l'agriculture, partout où le corps des agronomes s'avère insuffisant.

Les principaux objectifs des programmes, tant anciens que nouveaux sont les suivants :

- doter les élèves-maîtres de connaissances spécialisées en vue de leur formation professionnelle ;
- compléter leurs connaissances générales.

La part de l'enseignement pratique tant dans les anciens programmes que dans les nouveaux atteint à peu près le 1/3 de l'horaire.

- Conditions d'admission dans les "académies pédagogiques"

Jusqu'à l'année 1965/66, les candidats devaient posséder le certificat de fin d'études de l'enseignement secondaire général et réussir à un examen d'entrée. A partir de l'année 1965/66, le baccalauréat (Acadimaïkon Apolytition) est exigé et les admissions se font dans les limites des places disponibles.

- Durée de la formation dans les académies pédagogiques :
  3 années
- Qualification obtenue dans les académies pédagogiques :
  Diplôme d'instituteur
- Nombre de candidats et nombre de places offertes dans les académies pédagogiques

On a déjà signalé que le nombre de places disponibles était inférieur au nombre de candidats (cf. tableau 13).

Des facteurs économiques et sociaux sont pris en considération pour l'admission d'un certain nombre de candidats en surnombre : il s'agit d'enfants d'enseignants, d'invalides et de victimes de guerre, et de familles nombreuses nécessiteuses. Ces admissions ne peuvent pas dépasser le 1/3 des étudiants admis normalement. Sont admis en plus, des jeunes de nationalité étrangère mais d'origine grecque ; leur nombre est fixé chaque année par le ministre de l'Education.

Par ailleurs, un rapport constant de 1/3 pour les filles contre 2/3 pour les garçons est retenu dans les académies mixtes. Ce décalage entre filles et garçons est réduit par le fait qu'il existe 3 académies pédagogiques qui ne reçoivent que des jeunes filles. En 1961/62, sur 2.256 élèves-maîtres au total, il y avait 1.245 jeunes gens et 1.011 jeunes filles.

2) Enseignement secondaire général

Il n'y a pas d'Institut de formation professionnelle pour les enseignants dans le secondaire général. Ceux qui enseignent les lettres, les sciences, les langues et l'instruction religieuse sont licenciés des facultés universitaires, ceux qui enseignent d'autres matières comme l'enseignement ménager, l'éducation physique, la musique et les arts plastiques sont diplômés de l'enseignement supérieur non universitaire. Les facultés dispensent un enseignement de caractère purement scientifique, sans formation pédagogique.

- Conditions d'admission dans les universités et grandes écoles

Après la réforme, les étudiants sont admis dans les universités et grandes écoles après l'obtention du baccalauréat et compte tenu des places disponibles.

- Durée des études

Universités : 4 années

Grandes écoles : 2 à 4 années

- Qualification obtenue :

Université : Licence

Grandes écoles : Diplôme

- Nombre de candidats et nombre de places offertes dans les universités et grandes écoles :

Il y a beaucoup plus de candidats que de places disponibles dans l'enseignement supérieur.

3) Enseignement secondaire technique

L'Ecole de formation du personnel de l'enseignement technique et professionnel (SELETE) a commencé à fonctionner à partir de l'année 1959 ; les sections sont créées au fur et à mesure. Les chiffres présentés dans le tableau XVII (Annexe III) représentent la totalité de l'activité de cette école.

L'Ecole de formation du personnel de l'enseignement technique et professionnel (SELETE) se situe également au niveau supérieur non universitaire. Fondée récemment, elle n'a encore fourni qu'un petit nombre de diplômés (cf. tableau XVII (Annexe III) de l'enseignement technique et professionnel. Les enseignants dans les écoles techniques et professionnelles sont donc de qualification variable (cf. tableaux XIII b et XIII c Annexe III).

Il y a 5 sections en fonctionnement.

La section A donne une formation pédagogique à des enseignants du technique en exercice. Conditions d'admission :

1. Diplôme d'une école technique élémentaire, moyenne ou supérieure ; 2. Trois années d'expérience technique et 3. Deux années d'expérience d'enseignement.

La section B_1 donne une formation pédagogique et technique à des techniciens en vue de leur entrée dans l'enseignement technique. Conditions d'admission : 1. Diplôme d'une école technique moyenne et 2. Trois années d'expérience technique.

La section B_2 a les mêmes objectifs que la section B_1 mais, le recrutement étant de niveau plus élevé, les programmes sont différents. Conditions d'admission : 1. Diplôme d'une école technique recrutant au niveau du certificat de fin d'études du secondaire et 2. Trois années d'expérience technique.

La section C donne une formation pédagogique et des cours de perfectionnement à des professeurs d'anglais en exercice dans l'enseignement technique. Conditions d'admission : 1. Diplôme de professeur d'anglais ou équivalence ; 2. Deux années d'expérience de l'enseignement et 3. Examen d'entrée.

La section D a les mêmes objectifs, le même contenu des programmes et le même recrutement que la section A, mais elle fonctionne avec un horaire différent pendant deux périodes estivales au lieu de deux semestres en cours d'année scolaire.

Les programmes des sections A, B_1 et B_2 comportent trois catégories de matières :

- les cours d'enseignement général et scientifique
- les cours pédagogiques
- les cours techniques spécialisés.

Les étudiants des sections A et C suivent les cours pendant l'année scolaire. Ceux de la section B_1 pendant 2 années scolaires et ceux de la section D pendant 2 périodes estivales. Une section B_2 (durée d'études : 2 années scolaires) est entrée en activité en 1964/65. Admissions : 23 en 1964/65 et 42 en 1965/66. La première promotion de la section B_2 sortira en juillet 1966.

En 1965/66, il y a eu 55 admis en section A, 91 (dont seulement 65 suivent régulièrement les cours) en section B_1 et il y en aura 55 en section D. La section C n 'a pas fonctionné cette année.

Il n'y a presque pas de femmes dans l'effectif de la SELETE.

- Qualification obtenue :

Sections A, C et D :	Diplôme de perfectionnement pédagogique
Sections B_1 et B_2 :	Diplôme de perfectionnement pédagogique et technique.

- Durée des études :

Sections A et C : 2 semestres
Sections B_1 et B_2: 4 semestres
Section D : 2 périodes estivales.

Face à l'énormité des besoins, le débit de cette école est encore extrêmement faible.

Les étudiants sont admis sur leur demande et sur présentation d'un dossier. La sélection (critères : la qualification et l'expérience du candidat) est faite par l'école pour un nombre d'admissibles fixé d'avance d'après la capacité de l'école. Jusqu'à présent, il y a eu à peu près deux fois plus de candidats que d'admis.

- Age minimum exigé à l'entrée de ces trois types d'établissements

18 ans.

TABLEAU 14

HORAIRE DES SECTIONS A, B_1 ET B_2 DE LA SELETE (1965/1966)

Cours	Section A		Section B_1				Section B_2			
	semestres		1ère année semestres		2ème année semestres		1ère année semestres		2ème année semestres	
Cours communs	1	2	1	2	1	2	1	2	1	2
Ens. général et scientifique	7	3	16	15	4	3	8	1	1	8
Cours pédagogiques	8	11	6	8	11	12	6	7	6	6
Cours techniques spécialisés										
Sous-section : construction	3	3	8	5	9	9	7	7	-	-
Sous-section : électricité	3	3	8	8	9	9	7	7	9	5
Sous-section : mécanique	3	3	8	8	9	9	7	7	9	5
Total d'heures par semaine										
Sous-section : construction	18	17	30	28	24	24	21	15	7	14
Sous-section : électricité	18	17	30	31	24	24	21	15	16	19
Sous-section : mécanique	18	17	30	31	24	24	21	15	16	19

II. Modifications Entrainees par les Réformes de Structure du Système d'Enseignement

1) Réformes

Les principaux points de la réforme de l'enseignement qui risquent d'affecter tant le contenu de la formation des enseignants que l'ampleur de l'offre et la demande d'enseignants sont les suivants :

- allongement de la scolarité obligatoire de 6 à 9 années d'études;
- division du secondaire général en deux cycles superposés ;
- suppression de l'examen d'entrée au 1er cycle du secondaire (gymnase) et institution d'un examen d'entrée au 2ème cycle (lycée) ;
- développement de l'enseignement technique ;
- transformation d'un certain nombre de lycées d'enseignement général en lycées d'enseignement technique ;
- introduction de cours de technologie dans les gymnases ;
- fondation de l'institution du baccalauréat ;
- gratuité de l'enseignement à tous les niveaux ;
- création de cantines scolaires ;
- allongement de la durée des études dans les académies pédagogiques de 2 à 3 ans.

La loi de la réforme prévoit, d'autre part, la révision des programmes d'études dans les écoles du premier et du second degré. L'objectif de cette révision est la réadaptation décisive des matières, ainsi que les méthodes d'enseignement aux besoins de la société moderne. On se propose d'accorder une place prépondérante aux sciences et surtout aux mathématiques. D'autre part, en collaboration avec les autorités compétentes des gouvernements américains, anglais et français, on a obtenu les moyens et les méthodes les plus efficaces pour améliorer l'enseignement de l'anglais et du français qui sont les deux langues internationales enseignées aux niveaux secondaire et universitaire. Enfin, des éléments des sciences sociales (droit, économie politique, sociologie) sont introduits pour la première fois dans les programmes de l'enseignement secondaire.

2) Conséquences sur la formation des différentes catégories d'enseignants

a) Enseignement secondaire général

Il n'y a aucun projet de modification des programmes de formation des divers types de professeurs, ces programmes étant fixés par les autorités universitaires. Seul un projet de solution provisoire à court terme du problème du manque d'enseignants en langue est à l'étude.

b) Enseignement secondaire technique

Dans le cadre de la réforme de l'enseignement, la formation pédagogique et technique du personnel enseignant les matières technologiques et les cours pratiques serait assurée par la SELETE (Ecole de formation du personnel de l'enseignement technique et professionnel). Cette école comportera 5 branches :

a) Enseignement technique
b) Enseignement commercial
c) Enseignement agricole
d) Services
e) Enseignement artistique
f) Orientation professionnelle
g) Administration et direction d'établissement.

En ce qui concerne l'enseignement technique, stricto sensu, la SELETE aura un triple rôle : elle formera les enseignants des disciplines techniques théoriques et les enseignants des disciplines techniques pratiques, elle se chargera du perfectionnement des enseignants déjà en service.

1°) Formation des enseignants des disciplines techniques théoriques.

Ce cours qui dure actuellement 2 ans (à temps partiel) sera remplacé par un cours d'un an (à plein temps). L'admission se fera sur concours ouvert aux diplômés des écoles d'ingénieurs-techniciens ayant une expérience pratique de l'industrie. L'effectif annuel serait de 30 élèves-maîtres.

2°) Formation des enseignants des disciplines techniques pratiques

Ces cours dureront deux ans à plein temps. L'admission se fera sur concours ouvert aux candidats titulaires d'un diplôme d'un lycée technique ou d'une école professionnelle. Trois années d'expérience pratique, dont une partie pourra être entreprise durant la scolarité à la SELETE, seront nécessaires pour obtenir le diplôme. Les nouvelles inscriptions annuelles seraient de 45 élèves-maîtres.

3°) Recyclage des enseignants de l'enseignement technique

Un cours d'une durée d'un an (à temps partiel) sera organisé et réservé aux enseignants déjà en fonction et aux diplômés de l'université. L'admission se fera par concours. L'effectif annuel est estimé à 50 élèves-maîtres.

Cette dernière activité se fera en liaison avec l'Institut pédagogique. Les diplômés de l'université par exemple qui voudront s'engager dans l'enseignement technique recevront en particulier, à temps partiel sous forme de cours spéciaux, la formation pédagogique indispensable. Toujours en étroite collaboration avec l'Institut pédagogique, la SELETE organisera des réunions de directeurs et de surveillants d'écoles techniques et entreprendra des recherches sur les techniques d'enseignement et sur l'efficacité de l'enseignement technique et professionnel en Grèce. Il convient de signaler qu'il est prévu de construire sur le campus de l'école, une école technique modèle, une école professionnelle modèle et une école secondaire polyvalente modèle.

A la SELETE, l'année scolaire sera divisée en deux semestres de 18 semaines chacun. Les cours à plein temps auront une durée moyenne de 30 heures de cours théoriques et pratiques par semaine les cours à temps partiel seront en moyenne de 20 heures par semaine.

Parallèlement à la mise en place de la SELETE (dépendant du ministère de l'Education , sera installé un centre pilote pour la formation de moniteurs, d'instructeurs et de contremaîtres pour l'industrie (dépendant du ministère du Travail).

Le projet du Fonds Spécial des Nations Unies intéressant la création de ces deux établissements (1) prévoit qu'une collaboration pourra s'instaurer entre eux : le centre-pilote pourra bénéficier des moyens de formation théorique donnée à la SELETE et cette dernière pourra bénéficier des moyens de formation pratique offerte au Centre- pilote.

III. Qualification des Enseignants

1) Qualification des maîtres de l'enseignement technique

Une partie importante du personnel enseignant n'a pas de qualification suffisante : 32 % des enseignants du technique et 31 % de ceux du professionnel ne possèdent pas de titre supérieur au baccalauréat ou au diplôme de l'enseignement technique ou professionnel du second degré. Le relèvement du niveau de qualification du personnel enseignant dans le technique serait assuré par la SELETE.

2) Enseignement de certaines disciplines du secondaire général par des non-spécialistes

Il n'y a aucune donnée sur les enseignants qui se chargent d'enseigner une autre discipline que la leur. La décision est prise au niveau de chaque école par le directeur de l'établissement d'après les besoins constatés. Dans la mesure où le manque de professeurs en sciences et en langues sera comblé, ce phénomène cessera de se manifester. Pour pourvoir les postes vacants en sciences, le ministère de l'Education a déjà prolongé la limite d'âge de nomination des enseignants de cette discipline. Il envisage d'autre part le réemploi de retraités et l'utilisation de licenciés faisant leur service militaire.

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(1) Voir Amendement n° 1 to Plan of Operation - Country : Greece Title of project : "Training of technical teachers for vocationnal industrial schools". Athenes. United Nations development fund (special Fund) October 1966 (Polycopié).

IV. Perfectionnement et "re-formation" des enseignants

Il existe des cours de perfectionnement pour les différentes catégories d'enseignants. Jusqu'à 1965, le ministère de l'Education en était responsable. Ces cours ne sont pas obligatoires. Le cycle de perfectionnement des maîtres en poste du primaire n'a pas changé. 120 personnes par an bénéficient de ces cours organisés par l'Institut pédagogique et professés par certains de ses membres et des professeurs d'université. Le programme des cours a été modifié après la réforme quant à la durée du cycle, elle n'a pas changée : deux ans.

L'accès à ces cours est surbordonné à un examen d'entrée le candidat ne doit pas avoir plus de 35 ans et doit avoir enseigné, avec succès, pendant trois années. Les candidats sont en général dix fois plus nombreux que le nombre de postes offerts.

Les enseignants continuent à percevoir leur traitement pendant cette période de recyclage. Le titre conféré à l'issue de ce perfectionnement n'est pas un titre universitaire. Les professeurs de l'enseignement secondaire n'ont pas d'examen d'entrée à passer. Ils sont sélectionnés compte tenu du rapport des inspecteurs et des besoins des écoles. Ils reçoivent des cours de perfectionnement dans leur spécialité et en pédagogie.

Le programme des cours de perfectionnement des professeurs du secondaire, organisés par l'Institut pédagogique et touchant 60 personnes par an, a récemment été modifié. La durée du cycle, elle, reste inchangée : deux ans.

Depuis 1965, suite au décret 4379/1964, la responsabilité des divers recyclages appartient à l'Institut pédagogique.

L'Institut pédagogique est en train d'étudier un projet de réorganisation du système de ces cours qui toucheraient à l'avenir 600 personnes par an. Il y aurait :

a) des cours accélérés de recyclage. Durée : 1 semaine à 3 mois. Contenu : mise à jour des connaissances.

b) des cours de perfectionnement de formation générale. Durée : 1 année. Contenu : Mise à jour des connaissances et éléments de pédagogie.

c) des cours de perfectionnement de formation supérieure, But : formation du personnel de contrôle. Durée : 2 ans.

Il convient de signaler que les enseignants qui bénéficient d'un recyclage sont obligés de servir dans l'enseignement pendant 5 ans après la fin de leur "re-formation". Enfin l'article 10 du décret 4379/1964, précise que les cours d'initiation à la sociologie, au droit et à l'instruction civique et que les éléments de sciences économiques seront faits par des diplômés universitaires de droit et de sciences économiques et par les diplômés de l'école supérieure de sciences économiques et commerciales et de l'école supérieure Pantéios de "sciences civiques" (civic sciences), ayant suivi un cours de perfectionnement spécial.

V. Aide Matérielle Consentie aux Elèves-Maitres

1) Académies pédagogiques

Un certain nombre de bourses d'entretien sont accordées par l'Etat à des élèves des Académies pédagogiques. Pour l'année 1962/63, 150 élèves-maîtres sur 2.649 soit 5,7 % des effectifs, ont bénéficié d'une bourse. En 1965/66, 276 élèves-maîtres sur 2.944 recevaient une bourse, soit 9,35 des effectifs. Les principales conditions mises à l'obtention de la bourse sont : résultats scolaires satisfaisants et impossibilité matérielle dans laquelle se trouve l'étudiant de poursuivre ses études.

A part l'existence d'un réseau de cantines dans les Académies, il n'y a pas d'autre forme d'aide matérielle (pas d'internat en particulier).

2) "SELETE"

La fondation de bourses de l'Etat n'accorde pas de bourses aux étudiants de la SELETE Parmi les étudiants de la section D dont les cours ont lieu à Salonique, ceux qui sont déjà nommés dans l'enseignement public reçoivent une indemnité

3) Etudiants d'autres disciplines (universités et grandes écoles)

Les conditions mises à l'obtention des bourses sont les mêmes que pour les étudiants des Académies pédagogiques. Bien que nous n'ayons pas les chiffres exacts, nous pouvons affirmer que les élèves-maîtres reçoivent proportionnellement plus de bourses que les étudiants des autres disciplines.

Une certaine évolution s'est manifestée en ce domaine ces dernières années. Le nombre des bourses a augmenté et le montant en est passé de 8.400 drachmes par an en 1962 à 12.000 drachmes par an en 1965.

Il est à remarquer que si le nombre des bourses accordées aux étudiants est limité, l'enseignement supérieur est absolument gratuit depuis la mise en application de la réforme (Octobre 1964). En 1965/1966, 1.681 bourses ont été accordées sur un nombre total d'étudiants de 59.579 soit 2,8 % des effectifs.

L'article 15 (décret 4379/1964) de la loi d'organisation et d'administration de l'enseignement général prévoit que les élèves qui suivront les cours de formation universitaire accélérée de professeurs de certaines disciplines déficitaires devront enseigner obligatoirement dans une école publique au moins pendant 5 ans.

Les élèves admis en surnombre à l'université (diplômés de lycée "first honours", ne possèdant pas le certificat académique) peuvent bénéficier d'une bourse d'Etat pendant la durée de leurs études ; ils doivent enseigner dans une école publique pendant au moins cinq années. On n'a pas l'intention d'étendre cette mesure d'obligation de servir dans l'enseignement à d'autres catégories d'élèves-maîtres.

Au total le manque de professeurs dans certaines disciplines de l'enseignement secondaire général, n'est pas dû à un manque de candidats à l'Université, mais au peu d'empressement des diplômés es sciences à choisir l'enseignement.

Pour l'ensemble du système d'enseignement, on peut dire que le faible pourcentage de boursiers s'explique par la faiblesse des crédits.

CHAPITRE IV

POLITIQUE DE RECRUTEMENT

I. Politique suivie en matière de nomination

1) Conditions de nomination

a) Qualifications requises

- **Enseignement primaire** : diplôme d'instituteur délivré par une académie pédagogique.

- **Enseignement secondaire général** : licence d'une faculté universitaire pour l'enseignement des sciences, des humanités et de l'instruction religieuse, diplôme d'une grande école pour l'enseignement des autres disciplines.

- **Enseignement technique et professionnel** : les normes de qualification ne sont pas encore fixées.

b) Facteurs pris en considération lors de la nomination

- L'origine régionale influe sur l'affectation. Depuis 1950, une tendance à nommer les enseignants non loin de leur lieu d'origine se manifeste.

- Les enseignants d'instruction religieuse doivent être chrétiens orthodoxes.

c) Pratique des nominations

Dans le primaire et le secondaire général, il n'y a que des nominations d'enseignants qualifiés, diplômés ou licenciés.

Dans l'enseignement technique et professionnel, le recrutement est fait sur un éventail très large de niveaux et de qualifications.

d) Période probatoire

Une période probatoire qui reste absolument formelle existe pour les enseignants comme pour tous les fonctionnaires.

Elle est fixée à deux années.

2) Nominations

Les conditions de nomination d'un enseignant non permanent sont les mêmes que celles de la nomination d'un permanent.

- Primaire et secondaire général publics

La presque totalité des enseignants du primaire et la très grande majorité de ceux du secondaire sont nommés à titre permanent. Cependant, il existe certaines nominations de remplaçants et de temporaires. La durée et le nombre de ces nominations varient selon les besoins.

1. Les remplaçants sont nommés à la place :

   - d'un enseignant permanent qui suit des cours de perfectionnement ;
   - d'un enseignant permanent en congé qui enseigne dans les écoles grecques à l'étranger ;
   - d'un enseignant permanent en congé de maladie.

2. Les temporaires sont recrutés sur contrat dans des cas où le nombre des permanents est insuffisant :

   - par l'Association des parents de l'école qui assure leur rémunération ;
   - par la commune ou la municipalité qui utilisent à cette fin un fonds accordé spécialement par l'Etat.

L'Etat n'est pas consulté pour la nomination. Il ratifie simplement le choix fait par le Conseil des parents, la commune ou la municipalité.

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TABLEAU 15

TYPES DE NOMINATION DANS L'ENSEIGNEMENT PRIMAIRE ET SECONDAIRE GENERAL

Enseignement primaire (1962)

Type de nomination	Nombre d'enseignants	Pourcentage
1. Permanents	21.067	97,2
2. Remplaçants	357	1,7
3. Temporaires	242	1,1
Total	21.666	100,0

Enseignement secondaire (1962)

Type de nomination	Nombre d'enseignants	Pourcentage
1. Permanents	5.832	84,8
2. Remplaçants	169	2,5
3. Temporaires	488	7,1
4. A temps partiel	384	5,6
Total	6.873	100,0

- Primaire et secondaire général privés

Les enseignants dans les écoles privées sont sous contrat d'une durée de 3 années renouvelables.

- Technique et professionnel public et privé

La situation de l'emploi des enseignants dans le technique et le professionnel est variable et mouvante. A l'exception de quelques permanents détachés d'autres services, le recrutement est fait sur contrat à court terme.

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Enseignement primaire

TABLEAU 16

NOMINATIONS ANNUELLES DE 1955 à 1965 DANS L'ENSEIGNEMENT PRIMAIRE

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Hommes	414	478	592	593	1014	639	374	696	1149	812	869
Femmes	314	306	653	454	761	487	315	813	1347	775	482
Total	728	784	1245	847	1775	1126	689	1509	2496	1587	1351

Enseignement secondaire général

TABLEAU 17

NOMBRE D'ENSEIGNANTS, PAR DISCIPLINE, N'AYANT PAS RECU DE NOMINATION (Mars 1966)

Instruction religieuse	Enseignement ménager	Enseignement commercial
1.043	1.005	384

Note explicative :

Il s'agit de licenciés et de diplômés qui ont posé leur candidature au ministère de l'Education pour être nommés à un poste d'enseignant. Leur dossier est déposé au ministère. Ayant satisfait à toutes les conditions requises, ils attendent pour être nommés par ordre de priorité que des postes de leur spécialité soient vacants.

Les plus anciennes candidatures de la spécialité de l'enseignement ménager datent de 1957, de la spécialité de l'enseignement commercial de 1958 et de l'instruction religieuse de 1961.

En mars 1966 il n'y a pas de candidature insatisfaite dans d'autres disciplines.

II. Différents types de politique adoptés en matière de recrutement

1) Causes de départ des enseignants

L'âge des enseignants quittant la profession enseignante n'est pas relevé par les services. Les causes de départ par ailleurs ne sont pas toujours spécifiées. La grande majorité part à la retraite, pour les autres il est noté le plus souvent qu'ils ont démissionné, sans autres détails. Pour les chiffres bruts des départs, voir Tableau VI, Annexe III (enseignement primaire) et Tableau XII, Annexe III (enseignement secondaire général).

2) Maintien au-delà de l'âge de la retraite

L'Etat n'a pas encore fait appel à des enseignants à la retraite.

La nomination de professeurs à la retraite dans les disciplines où il y a manque d'enseignants est à l'étude. Néanmoins, un certain nombre d'enseignants à la retraite entrent dans l'enseignement privé (cf. Tableaux VII c et VII d, Annexe III).

3) Abaissement provisoire des normes de qualification

Il n'y a pas de nomination d'enseignants non qualifiés.

4) Formation accélérée

Il n'y a pas de programmes de formation accélérée des enseignants, mais "dans le cas où l'on prévoit, en vue de l'allongement de la scolarité obligatoire, un manque d'enseignants de certaines disciplines dans les écoles de l'enseignement secondaire, il est possible que des sections spéciales de formation accélérée soient pour quelque temps instituées (dans les facultés correspondantes) par l'introduction d'un troisième semestre d'études pendant les mois estivaux".

5) Participation féminine à la profession enseignante

a) Participation féminine dans l'enseignement primaire

Les Tableaux I a et I b, Annexe III, présentent la répartition par sexe des maîtres dans l'enseignement public et privé. Dans l'enseignement public le pourcentage de femmes est de 45 %, dans l'enseignement privé de 60 %. Comparé à d'autres professions, l'enseignement comprend un plus grand nombre de femmes. Ceci a probablement pour cause la nature du travail, vacances prolongées, petit nombre d'heures de travail par jour, intérêt de la femme pour les enfants sont des facteurs décisifs dans le choix d'une carrière. Les établissements privés attirent encore beaucoup plus les femmes dans la mesure où ils sont situés dans les villes. Les hommes sont principalement intéressés par la stabilité procurée par le service public, tandis que certaines femmes ne s'intéressent à cette profession que temporairement, avant le mariage.

b) Participation féminine dans l'enseignement secondaire général

La participation féminine est réduite dans les sciences et l'instruction religieuse. Néanmoins, il n'existe pas de politique visant à attirer plus d'étudiants dans les matières déficitaires du côté masculin. D'ailleurs, les candidats excèdent toujours les places disponibles. Les femmes, relativement plus importantes en nombre dans l'enseignement privé se font une place toujours plus grande dans le corps enseignant et passent de 30 % en 1955 à 37 % dans l'enseignement public et de 36 % en 1955 à 41 % dans l'enseignement privé (Tableau VII a et VII b Annexe III).

La proportion des femmes s'accroît à mesure qu'on remonte vers les classes d'âge les plus jeunes. Même si l'on considère le fait que souvent les femmes partent à la retraite plus jeunes que les hommes et qu'elles entrent dans l'enseignement sans être retardées comme eux par le service militaire, il est indiscutable qu'une féminisation progressive du corps des enseignants est en train de se réaliser.

c) Participation féminine dans l'enseignement technique

Elle est très réduite dans l'enseignement technique (4,3 % des élèves, 5,6 % des enseignants - Tableau XIII a. - Annexe III). Dans l'enseignement professionnel, grâce surtout aux écoles d'enseignement ménager, les jeunes filles atteignent 51 % des effectifs et les enseignantes 34 % du total des enseignants. La distribution des élèves par sexe entre les différentes catégories d'écoles professionnelles s'adapte aux exigences des professions et aux habitudes sociales (cf. Tableaux 6 et 8).

En général, si une femme enseignante n'est pas en congé de maladie ou de maternité ou détachée dans une école grecque à l'étranger, on ne peut lui accorder un congé pour convenance personnelle et elle est obligée de démissionner. Elle ne retrouve naturellement pas son poste et doit poser de nouveau sa candidature à la nomination.

6) Heures supplémentaires dans l'enseignement secondaire général public

C'est surtout en sciences où il y a pénurie de professeurs que les enseignants font des heures supplémentaires (Tableau 18).

Plus du 1/3 des heures supplémentaires sont dispensées dans le Grand Athènes où d'ailleurs est noté un rapport élèves/maître des plus forts (cf. Tableau 18).

Leur diminution se heurte pour l'immédiat au manque d'enseignants.

7) Utilisation d'enseignants à temps partiel

Il n'y a pas eu de politique visant à l'emploi d'enseignants à temps partiel, dans l'enseignement primaire et secondaire général public. Il n'y a pas de changement à envisager. Par contre, dans l'enseignement technique les enseignants ne travaillent pas à plein temps. L'enseignement dans le technique et le professionnel n'est pour eux qu'une occupation professionnelle secondaire. Dans l'enseignement privé, la majorité des enseignants enseignent à temps partiel.

Les enseignants à temps partiel dans les écoles privées sont classés en 3 catégories selon leur occupation principale : a) ceux qui enseignent dans les écoles publiques à temps plein et dans les écoles privées à temps partiel, b) ceux qui n'enseignent que dans les écoles privées à temps partiel (ce qui ne les

Enseignement secondaire général

TABLEAU 18

NOMBRE D'HEURES SUPPLEMENTAIRES DISPENSEES PAR DES ENSEIGNANTS DANS LES ECOLES SECONDAIRES PUBLIQUES DU JOUR ET EQUIVALENCE A PLEIN TEMPS PAR SEXE ET PAR CATEGORIE DE DISCIPLINES (1) pour L'ANNEE 1963

	Total d'heures supplémentaires par semaine		Nombre d'heures supplémentaires par discipline							
			Science		Humanités		Instruction religieuse		Autres disciplines	
	HF	F	HF	F	HF	F	HF	F	HF	F
Total pour la Grèce	2227	588	1163	149	599	292	199	49	266	98
dont : Grand Athènes	789	225	412	51	245	143	49	6	83	25

	Total		Equivalence à temps plein (2)							
			Science		Humanités		Instruction religieuse		Autres disciplines	
	HF	F	HF	F	HF	F	HF	F	HF	F
Total pour la Grèce	93	24	49	6	25	12	8	2	11	4
dont : Grand Athènes	33	9	17	2	10	6	2	0	4	1

Notes :

1. Il s'agit des disciplines dans lesquelles l'enseignant est qualifié et non pas des disciplines pour lesquelles il dispense des heures supplémentaires. En effet, certains enseignants (dont un nombre appréciable de licenciés en théologie) se chargent, selon les besoins de l'école, de l'enseignement de cours étrangers à leur qualification.
2. L'horaire à temps plein d'un enseignant du secondaire général est de 24 heures par semaine.

empêche pas de travailler dans différentes écoles privées à la fois) et c) les enseignants de l'enseignement public à la retraite (Tableau VII c), VII d) Annexe III).

Les enseignants à temps partiel sont en large partie concentrés dans le Grand Athènes, comme d'ailleurs tout le privé.

8) Autres dérogations aux conditions de nomination

(Article 15 - décret 4379/1964)

"En dérogation aux dispositions de l'article 17.1 de la loi 1811/54, les diplômés des établissements universitaires préparant des enseignants peuvent être affectés, pendant une période de 5 années à compter de la publication du présent décret, à des postes d'enseignants vacants au sein des écoles secondaires publiques avant d'avoir accompli leur service militaire."

"Pendant une période de cinq ans à compter de la publication du présent décret, l'affectation de diplômés de physique, de mathématiques, de chimie et de langues étrangères comme enseignants de ces disciplines dans des écoles secondaires, est permise, même s'ils ont dépassé l'âge limite légal de nomination, à condition qu'ils aient enseigné au moins trois années (y compris à titre temporaire) et qu'ils aient posé leur candidature et que l'organisme officiel approprié se soit déclaré favorable à leur nomination."

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TABLEAU 19

NOMBRE D'ECOLES PRIMAIRES (PUBLIQUES ET PRIVEES) INSTITUTEURS ET RAPPORT MAITRE/ELEVES PAR REGION EN 1962/1963

Régions géographiques	Ecoles publiques				Ecoles privées			
	Nombre d' écoles	Nombre de maîtres	Nombre d'élèves		Nombre d' écoles	Nombre de maîtres	Nombre d'élèves	
			Total	Par maître			Total	Par maître
Total pour la Grèce	9333	21993	846368	38,5	755	2276	64726	28,4
Grand Athènes	405	2405	105942	44,0	400	1445	42810	29,6
Reste de la Grèce Centrale et Eurée	1373	2802	109737	39,2	18	46	1349	29,3
Peloponnèse	1853	3542	130803	36,9	13	46	1397	30,4
Iles Ionniennes	379	636	23326	36,7	4	12	286	23,8
Epire	850	1437	50961	35,5	2	10	195	19,5
Thessalie	788	1970	81914	41,6	8	40	961	24,0
Macedoine	1863	5174	206580	39,9	28	140	3584	25,6
Thrace	317	767	30039	39,2	280	493	13184	26,7
Iles de la Mer Egée	631	1651	52801	32,0	6	15	371	24,7
Crête	874	1609	54265	33,7	7	29	589	20,3

III. Répartition régionale des enseignants

1) Enseignement primaire

Le rapport moyen maître/élèves dans l'enseignement public était de 38,5 en 1963 ; malheureusement il ne s'agit que d'une moyenne qui reflète mal la réalité. Il existe des écoles, principalement à Athènes et à Salonique, qui comptent 60,70 ou 80 élèves et plus par classe. Il existe donc une distribution très irrégulière du rapport maître/élèves sur l'ensemble du territoire.

Aussi, existe-t-il des écoles dans des villages isolés ou dans des régions vidées de leur substance par les migrations où le nombre des élèves est d'une dizaine. Le Tableau 19 montre le rapport moyen maître/élèves dans les différents départements grecs. Le chiffre varie de 44 à 32, le plus élevé se rencontrant à Athènes et le plus faible dans les Iles de la Mer Egée. Une meilleure répartition des écoles au sein des diverses régions de la Grèce, grâce à un regroupement des petites écoles et d'un dédoublement des plus importantes, pourrait réduire les écarts énormes constatés actuellement (1).

2) Enseignement secondaire général

a. Concentration dans le Grand Athènes.

Un fort pourcentage d'effectifs scolaires est concentré dans le Grand Athènes, ce qui traduit simplement la concentration démographique. Le nombre dec professeurs y est important, mais le rapport élèves/maître dans l'enseignement public montre qu'ils sont insuffisants. Le rapport élèves/classe est par ailleurs aussi défavorable. Ces conditions difficiles dans lesquelles fonctionnent les écoles secondaires publiques seraient une des raisons de l'expansion de l'enseignement privé dans le Grand Athènes où se trouvent la moitié des effectifs des élèves de l'enseignement secondaire privé de toute la Grèce. Ils représentent 26 % de tous les élèves du secondaire général du Grand Athènes.

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(1) Plan of the Economic Development of Greece, 1966-1970. Center of Planning and Economic Research, p. 453.

2. Inégalités régionales

Les écoles secondaires privées sont réparties de manière inégale selon les régions. Après le Grand Athènes, c'est en Macédoine que nous trouvons une forte proportion (21.5 %) de la totalité des effectifs du secondaire de la région dans les écoles privées. En Crète et en Thessalie, cette proportion s'établit autour de 14 % et dans les autres régions elle tombe au-dessous de 6 %, jusqu'à 0 dans les Iles Ioniennes. Il ne semble pas qu'il y ait une différence de préférence pour le privé entre garçons et filles.

La moyenne pour la Grèce du rapport élèves/maître dans l'enseignement secondaire public marque des inégalités régionales assez fortes. Ainsi ce rapport va des 41 élèves par maître en Epire aux 28 élèves par maître dans les Iles d'Egée.

Il est à noter que les régions qui présentent les rapports élèves/maître les plus défavorables sont, à l'exception de l'Epire, celles où l'on trouve les plus grandes proportions d'élèves dans le privé (cf. Tableau 20). Ce fait tiendrait à prouver que la création d'écoles privées répond à des besoins objectifs et aux déficiences de l'enseignement public.

Utilisation optimale des enseignants

Le décret 4379/1964, Article 11 (réforme de l'enseignement) précise :

Dans les villes où existe plus d'une école secondaire d'enseignement général, les professeurs des diverses disciplines qui sont affectés à un poste permanent dans ces écoles assureront des heures d'enseignement dans d'autres établissements de la même ville afin de compléter leurs horaires obligatoires.

Quant à l'Article 14, il est ainsi libellé :

Afin que les heures d'enseignement prévues dans les horaires officiels soient respectées, l'enseignement des diverses disciplines peut être confié au personnel enseignant des gymnases et des lycées en heures supplémentaires, jusqu'à 12 heures par semaine.

Ceci prend effet par une décision ministérielle: les enseignants sont appelés à donner ces heures supplémentaires, soit dans les lieux où ils sont affectés, soit dans d'autres écoles de la ville ou du voisinage immédiat.

3) Enseignement secondaire technique

Concentration dans le Grand Athènes

La concentration excessive dans le Grand Athènes (qui absorbe 39 % des écoles, 40 % des enseignants et 52 % des élèves) est une des caractéristiques les plus marquantes de l'enseignement technique (cf. Tableaux 21 et 22).

TABLEAU 20

NOMBRE D'ENSEIGNANTS A PLEIN TEMPS, EFFECTIFS SCOLAIRES ET RAPPORT MAITRE/ELEVES DANS LES ECOLES SECONDAIRES DE JOUR PAR SEXE, TYPE D'ECOLES ET REGION GEOGRAPHIQUE

(1963)

	Enseignants à temps plein					Effectifs des élèves					Nombre d'élèves par maître	
		Ecoles Publiques		Ecoles Privées			Ecoles Publiques		Ecoles Privées			
	Total	HF	F	HF	F	Total	HF	F	HF	F	Publ.	Privées
Total de Grèce	8571	7167	2685	1404	573	284462	241394	109097	43068	18904	34	21
Grand Athènes	2312	1674	682	638	287	82743	61224	31737	21519	10268	37	19
Reste Grèce Centrale	913	853	317	60	12	27404	26074	10374	1330	428	31	
Péloponnèse	1252	1203	430	49	18	39839	38432	16583	1417	581	32	
Iles Ioniennes	196	196	60	-	-	6072	6072	2516	-	-	32	
Epire	274	252	54	22	6	11021	10463	3566	558	190	41	
Thessalie	510	445	152	65	17	18520	16019	6209	2501	929	36	
Macédoine	1779	1345	626	434	187	58474	45913	21895	12561	5119	34	
Thrace	229	220	90	9	4	6822	6414	2904	408	122	29	
Iles d'Egée	559	538	128	21	-	15096	14913	6256	183	151	28	
Crète	547	441	146	106	42	18471	15870	7057	2601	1116	36	

Note : Pour établir le rapport élèves/maître dans les écoles privées, nous avons ajouté au nombre des enseignants à temps plein l'équivalent en professeurs des heures dispensées par les enseignants à temps partiel (cf. Tableaux 6 et 7).

TABLEAU 21

NOMBRE D'ELEVES DANS LES ECOLES TECHNIQUES PUBLIQUES ET PRIVEES POUR LA GRECE ET LE GRAND ATHENES (1963)

	Total		Publiques		Privées		% Privées	
	HF	F	HF	F	HF	F	HF	F
Total pour la Grèce	48.064	2.071	14.454	1.002	33.610	1.069	69,9	51,6
Dont dans le Grand Athènes	25.104	781	5.772	282	19.332	499	77	63,9
% dans le Grand Athènes	52,2	37,7	39,9	28,1	57,5	46,7		

TABLEAU 22

NOMBRE D'ENSEIGNANTS DANS LES ECOLES TECHNIQUES PUBLIQUES ET PRIVEES POUR LA GRECE ET LE GRAND ATHENES PAR SEXE (1963)

	Total		Publiques		Privées		% Privées	
	HF	F	HF	F	HF	F	HF	F
Total pour la Grèce	3.415	193	1.814	130	1.601	63	46,9	32,6
Dont dans le Grand Athènes	1.356	57	493	29	863	28	63,6	49,1
% dans le Grand Athènes	39,7	29,5	27,2	22,3	53,9	44,4		

CHAPITRE V

POSSIBILITES DE CARRIERE ET CONDITIONS DE TRAVAIL

I. Politique salariale

En 1964, une allocation de 500 drachmes (dr.) a été accordée aux enseignants du premier degré et une allocation supplémentaire de 400 dr. aux instituteurs enseignant dans les écoles primaires à maître unique. En 1965, il a été alloué 300 dr. aux directeurs des écoles primaires à plusieurs maîtres. Aux professeurs de l'enseignement du second degré, il a été alloué en 1964 la somme de 800 drachmes. Une allocation spéciale de 500 dr. a été accordée de plus aux professeurs nommés dans les villes de moins de 2.500 habitants. Ces allocations ont été accordées afin que les appointements des enseignants rattrapent le niveau moyen des salaires des autres employés. On n'a pas accordé des appointements plus élevés aux professeurs appartenant aux spécialités où la pénurie d'enseignants se fait sentir davantage (professeurs de mathématiques, de sciences physiques, de langues étrangères) car cela est contraire aux lois et conventions, mais on leur a permis de faire des heures supplémentaires à raison de 50 dr. l'heure, mesure qui améliore indirectement leur situation.

Echelle des salaires

Il existe des indemnités diverses selon l'ancienneté, le coût de la vie, le type d'établissement, le travail administratif etc. L'échelle des salaires des instituteurs en 1965/1966 était la suivante :

Tableau 23 ECHELLE DES SALAIRES DES INSTITUTEURS EN 1965/1966

Echelons	Salaire de base	Indemnités	Total
2ème	4.003	4.291	8.294
3ème	3.396	3.788	7.184
4ème	2.834	3.323	6.157
5ème	2.558	2.973	5.531
6ème	2.168	2.324	4.492
7ème	1.891	1.846	3.737
8ème	1.693	1.837	3.530

L'échelle des salaires des professeurs de l'enseignement secondaire en 1964 était la suivante :

TABLEAU 24 ECHELLE DES SALAIRES DES PROFESSEURS DE L'ENSEIGNEMENT SECONDAIRE GENERAL EN 1964

Echelons	Salaire de base	Indemnités	Total
2ème (Directeur)	4.946	4.643	9.589
3ème (Directeur Adjoint)	3.649	4.209	7.858
4ème (Professeurs A)	3.014	2.595	5.609
5ème (Professeurs B)	2.714	2.392	5.106
6ème (Professeurs C)	2.415	1.582	3.997
7ème (Débutant)	2.116	1.502	3.624

Les professeurs de l'enseignement secondaire qui ne possèdent pas de diplôme universitaire, par exemple les professeurs d'éducation physique, de musique, de travaux artistiques débutent dans la profession avec un salaire de base de 1.784 dr. et des indemnités s'élevant à 1.484 dr. soit un total de 3.280 dr. par mois. Il apparaît que les indemnités sont souvent supérieures au salaire de base, leur pourcentage atteint environ 49 % à 54 % du traitement total pour les instituteurs et environ 40 % à 50 % pour les professeurs de l'enseignement secondaire.

Les enseignants des écoles techniques publiques sont rémunérés sur la base de 25 dr. par heure pour les travailleurs qualifiés et 75 dr. par heure pour les techniciens diplômés de l'Université. La progression du salaire suit la promotion. Pour les deux, les critères sont l'ancienneté et les capacités : ces critères sont les mêmes dans l'enseignement privé.

Les enseignants reçoivent des indemnités pour les travaux extra-scolaires qu'ils ont à accomplir, par exemple pour des tâches administratives et de secrétariat.

Les traitements des professeurs sont les mêmes quelles que soient les disciplines enseignées, sauf dans l'enseignement technique où l'on paie les enseignants à l'heure.

Si l'on compare le salaire des enseignants avec celui d'autres professions, on arrive aux conclusions suivantes :

- les professeurs de l'enseignement secondaire reçoivent un salaire inférieur à celui des cadres techniciens possédant un diplôme universitaire et à celui des diplômés universitaires ayant une profession à vocation administrative
- les instituteurs reçoivent un traitement égal à celui des fonctionnaires se situant au même échelon
- certes les enseignants réclament de nouveaux ajustements de salaire mais il n'existe pas actuellement de plan visant à augmenter les traitements plus rapidement que l'accroissement normal.

Système de pension

Le système de pension des enseignants est le même que celui appliqué aux fonctionnaires soit 35 ans de service pour obtenir une pension complète ou une fraction de pension pour un service de moindre durée mais jamais inférieure à 25 années. Seules les personnes mariées peuvent recevoir une pension après 15 ans de service. Depuis 1964, aucun fonctionnaire ne peut exercer plus de 35 ans, sauf s'il n'a pas atteint l'âge de 56 ans.

La pension complète est égale à 80 % du montant du dernier salaire plus l'indemnité d'ancienneté. A cette pension de base s'ajoutent les montants de deux autres fonds : 13 % pour le "civil servant share fund" et 19 % pour la mutuelle des enseignants (Teacher's Help Fund). Les fonctionnaires versent régulièrement leur contribution à ces deux fonds pendant leur vie active. Ces deux fonds sont des sortes d'assurance-vie. Il existe également un don spécial fait aux pensionnés, selon leur degré hiérarchique lorsqu'ils quittent la profession ; ce don varie de 90.000 à 165.000 dr. Le système de pension des enseignants du secteur privé est différent, le montant de la pension est généralement plus faible. La pension la plus élevée qu'un individu peut revevoir est de 3.000 dr. environ, sans tenir compte du salaire qu'il a pu toucher pendant sa vie active. A ce montant il faut ajouter diverses indemnités (ne dépassant pas 50 % lorsqu'il existe des personnes à charge) qui, s'ajoutant à la pension de base, donnent un maximum d'environ 4.500 dr. de pension comparé aux 7.500 dr. ou souvent plus de la pension d'un maître de l'enseignement public.

II. Politique de promotion

a) A un niveau d'enseignement supérieur

On ne peut être nommé à un niveau d'enseignement supérieur que si l'on possède les qualifications requises pour enseigner à ce niveau, ainsi un instituteur ne sera nommé dans l'enseignement secondaire que s'il a obtenu un diplôme universitaire. Dans ce cas, les années de service qu'il a déjà effectuées dans l'enseignement primaire sont prises en considération pour son avancement, son salaire etc.. dans l'enseignement secondaire.

b) Au sein d'un niveau d'enseignement

La promotion ne se fait pas à la suite d'examens mais compte tenu des qualifications prescrites par la loi, par exemple diplômes, années de service et des qualités révélées pendant le service, par exemple rendement du travail, publications, prix éventuels remportés.

Il existe un décret spécial intéressant la promotion de tous les fonctionnaires. Il y a également des mécanismes particuliers intéressant les enseignants. Ainsi, dans l'enseignement primaire, la promotion prend la forme suivante :

TABLEAU 25 PROMOTION DANS L'ENSEIGNEMENT PRIMAIRE

Echelon	Années de service	Au Choix	Au choix préférentiel
7ème	plus de 2	-	-
6ème	" 5	-	-
5ème	8	V	-
4ème	11	-	-
3ème	14	-	V
(depuis 1965) 2ème	17	-	V

Au-delà du 5ème échelon il est quasiment impossible à un instituteur d'être promu malgré le nombre requis d'années de service. Pour le 2ème échelon, que les institeurs peuvent obtenir seulement depuis 1965, le choix préférentiel repose autant sur les qualités scientifiques, administratives et pédagogiques de l'enseignant que sur son rôle social au sein de la Communauté.

Dans l'enseignement secondaire, la promotion prend la forme suivante :

TABLEAU 26 PROMOTION DANS L'ENSEIGNEMENT SECONDAIRE GENERAL

Echelon (1)	Années de service	Au choix	Au choix préferentiel
6ème	3	-	-
5ème	4	-	-
4ème	11	-	-
3ème	14	V	V
2ème	17	V	-

(1) Depuis 1966, l'échelon de directeur de lycée (établissement de deuxième cycle) existe et se situe à un niveau plus élevé que celui de directeur de gymnase (établissement de premier cycle).

Un diplôme de perfectionnement universitaire est accordé aux instituteurs qui réussissent leur examen ; il leur permet d'être nommés à des postes supérieurs. La possession de ce diplôme est indispensable aux inspecteurs et inspecteurs généraux de l'instruction primaire.

Le nombre des enseignants affectés par des promotions à un niveau d'enseignement plus élevé n'est pas connu. Néanmoins, il est considéré comme infime.

Les enseignants peuvent bénéficier d'un congé d'étude :

- ils conservent leur traitement et perçoivent une indemnité spéciale
- leur proportion est inférieure à 1 % (annuellement) et très peu d'entre eux (sans conserver leur traitement) partent à l'étranger.

L'objectif de ces congés d'étude est un recyclage dans la spécialité ou une initiation à la psycho-pédagogie (en Grèce ou à l'étranger).

III. Conditions de travail

1) Nombre légal d'heures d'enseignement par semaine :

- Ecoles primaires (enseignement général) : 28 à 32 heures par semaine
- Ecoles secondaires (enseignement général) : 22 à 26 heures par semaine
- Ecoles techniques : moins de 45 heures par mois pour un enseignant à temps partiel.

2) Heures supplémentaires que les enseignants sont autorisés à faire au-delà du nombre d'heures d'enseignement légalement requis

- Instituteurs primaires : jusqu'à 8 heures par semaine
- Professeurs de l'enseignement secondaire : le total des heures légales et des heures supplémentaires ne doit pas excéder 36 heures par semaine.

A l'heure actuelle, il est impossible d'indiquer le nombre moyen d'heures pendant lesquelles l'enseignant travaille.

Ceci dépend de la catégorie et de l'emplacement de l'établissement, de la spécialité de l'enseignant, des activités que l'école organise en son sein ou à l'extérieur etc..

2) Depuis 1964, seuls les professeurs de physique, de mathématiques, de géographie, de langues étrangères reçoivent une rémunération plus élevée pour les heures d'enseignement données au-delà de l'emploi du temps légal. Chaque heure supplémentaire est payée 50 dr.

3) Au cours des dernières dix années, le rapport maître/élèves a évolué de la façon suivante :

TABLEAU 27 EVOLUTION DU RAPPORT MAITRE/ELEVES DANS L'ENSEIGNEMENT PRIMAIRE ET SECONDAIRE GENERAL

Années	1955	1960	1962	1963
Enseignement primaire	51	40	39	38,5
Enseignement secondaire	36	40	35,3	34

Enseignement technique

Pour établir le rapport élèves/maître il nous a fallu convertir les heures d'enseignement dispensé à temps partiel en équivalent à plein temps Or, le nombre d'heures d'enseignement par semaine d'un enseignant du technique varie de 18 à 36 heures selon l'école et la discipline enseignée. Nous avons retenu l'hypothèse d'une moyenne de 25 heures par semaine pour l'enseignement théorique et de 30 heures pour l'enseignement pratique. Il est à remarquer que le rapport élèves/maître ainsi établi est loin d'être satisfaisant, dans les écoles techniques en particulier (tableau XIII d - Annexe III).

CHAPITRE VI

Politique visant à accroître la "productivité" de l'enseignement

I. Ecoles à maître unique

Afin d'augmenter la "productivité" de l'enseignement, on devrait réaliser autant que possible la concentration des écoles à maître unique, créer ainsi de plus grandes unités scolaires (1). Près de 42 % du total des écoles primaires sont des écoles à maître unique. Néanmoins, la concentration de ces écoles est irréalisable pour le moment. Il n'est pas possible - pour des raisons d'ordre culturel et d'instruction - de priver certaines communautés fort éloignées l'une de l'autre de leur école à maître unique.

II. Tâches secondaires

La productivité de l'instituteur sera peut être accrue si on le libère des tâches secondaires qu'il est obligé d'accomplir hors de l'école. A la campagne et surtout dans les régions lointaines, le maître doit par exemple servir de secrétaire de la communauté ou de la coopérative agricole, de président de divers comités (par exemple d'aide aux indigents, de distribution de secours).

Ces tâches variées l'occupent alors que ce temps précieux pourrait être consacré à son oeuvre d'enseignement où il a beaucoup à offrir.

Le nombre d'heures par semaine que l'enseignant consacre à des tâches non directement éducatives n'est pas connu. Sauf le Directeur d'école, les autres enseignants ne sont pas astreints à des tâches autres que l'enseignement mais en fait, comme on l'a souligné ci-dessus, il a beaucoup d'autres activités principalement depuis 1965, date à laquelle on a introduit des repas pour 400.000 élèves. Dans les écoles fournissant ces repas, les enseignants consacrent à cette tâche, 10 à 12 heures par semaine et reçoivent une indemnité spéciale.

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(1) Les écoles à maître unique sont onéreuses car le maître n'a à s'occuper que de 8 à 10 élèves et l'équipement moderne est cher (par exemple les bibliothèques scolaires, les laboratoires, les moyens audio-visuels, le cinéma scolaire, etc.).

Au total,on ne s'attend pas dans les prochaines années à une diminution des activités non directement éducatives des enseignants.

III. Utilisation des nouvelles méthodes et nouveaux moyens d'enseignement

Les moyens audio-visuels, les machines à enseigner ou l'enseignement programmé n'ont pas été introduits dans l'enseignement. Des décisions concernant l'utilisation de nouvelles techniques d'enseignement ont été prises (ou vont être prises), mais en tout état de cause des moyens mis en oeuvre n'affecteront pas, dans un proche avenir, l'offre et la demande d'enseignants.

En effet, l'utilisation des nouvelles méthodes et des nouveaux moyens d'enseignement, par exemple l'enseignement de la physique par unité mobile dans l'enseignement du second degré, l'enseignement des mathématiques en tant que tel, l'utilisation des moyens audio-visuels, l'enseignement des mathématiques par radio etc. se trouve malheureusement à un stade expérimental et est de faible étendue.

En ce qui concerne l'Institut pédagogique, les prescriptions du décret législatif 4379/64 sont déjà entrées en application. Elles concernent le rôle de l'Institut dans la recherche fondamentale et appliquée dans le domaine de l'enseignement, dans la transmission des innovations au sein du système d'enseignement, grâce en particulier à des contacts avec le personnel enseignant et le personnel administratif.

ANNEXE I

Méthodes de prévision

Les méthodes qui ont été employées dans les prévisions de l'enseignement sont les suivantes :

a) Méthodes analytiques, quand les données constituent une suite chronologique suivie. Ces prévisions ont été réalisées en ramenant les données à une équation générale du type (1) $y = a + bx$, suivant la méthode des moindres carrés. C'est selon cette méthode qu'on a déterminé le nombre des instituteurs des écoles publiques, le nombre des candidats admis à l'entrée dans les universités et les autres écoles supérieures, ainsi que le nombre des élèves des écoles techniques.

b) les méthodes empiriques ont été utilisées dans les cas où les données ne constituaient pas une suite chronologique suivie et où de nouveaux facteurs intervenant dans la suite chronologique déforment les tendances (par exemple les innovations de la réforme de l'enseignement en ce qui concerne le gymnase ont contribué à l'augmentation brusque des élèves nouvellement inscrits dans une proportion de 25% alors que cette augmentation n'était que de 5-7% par an).

Pour déterminer les effectifs d'élèves des gymnases on a tenu compte de la population âgée de 6 à 11 ans. Environ 11% de cette population achèvent leurs études primaires, 72% des élèves ayant achevé leurs études primaires en 1964-65 seront inscrits au gymnase. Si l'on suppose que, en 1970, l'enseignement allongé d'une durée de neuf ans aura atteint sa réalisation, le nombre des diplômés des écoles primaires devra aller de pair avec celui des élèves admis au gymnase. Tenant compte du fait que le nombre d'abandons des études ira diminuant, on a déterminé le nombre total des élèves du gymnase. C'est d'après une méthode similaire qu'on a évalué le nombre des élèves du lycée.

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(1) la somme des carrés des écarts est en effet un minimum pour ce type d'équation.

Afin de déterminer le nombre d'enseignants du secondaire, on a tenu compte des effectifs d'élèves relatifs au nombre d'écoles et aux spécialités des enseignants.

En ce qui concerne l'évaluation des étudiants inscrits dans les diverses facultés et écoles supérieures on a tenu compte du pourcentage moyen des nouvelles admissions comparé au total des étudiants inscrits. Pour ce qui est des diplômés, on a évalué leur pourcentage en comparaison des étudiants inscrits.

- La réunion des données fournies par les services de statistique et leur présentation ont eu comme résultat l'application des diverses méthodes analytiques afin de réaliser les prévisions pour le futur.

- Pour réaliser de meilleures prévisions à l'avenir, il sera utile de préparer des données statistiques détaillées et précises ; on pourra ainsi avoir un tableau du passé et appliquer des méthodes analytiques de statistique en ce qui concerne les prévisions.

ANNEXE II

Financement et coût de la formation des enseignants

La répartition de la dépense d'éducation se fait comme suit :

49,7%	pour l'enseignement du premier degré et le perfectionnement des instituteurs
18,3	pour le secondaire
2,5	pour l'enseignement professionnel et technique
13,0	pour l'enseignement supérieur
0,2	pour l'enseignement des adultes
16,3	pour les services du Ministère de l'Education nationale, des instituts, des bibliothèques et des services d'archives

Les universités et toutes les écoles supérieures sont gouvernementales. Elles sont financées par le budget de l'Etat ; les legs apportent une contribution importante en ce qui concerne le financement de l'Université d'Athènes. Les données séparées concernant le financement de chaque faculté de l'Université ne sont pas disponibles. C'est pourquoi il n'est pas possible de distinguer dans ce domaine les facultés préparant les futurs professeurs des autres.

Le nombre exact d'étudiants inscrits aux Académies pédagogiques (Ecoles normales d'instituteurs) qui correspond au budget de 1966 est de 2.949.

Par conséquent le coût de fonctionnement par étudiant est de

$$\frac{24.254.416 \text{ drs}}{2.949} = 8.224,62 \text{ drs.}$$

Dans le total de 24.254.416 drs, 71,84% représentent les dépenses au titre des salaires du personnel et 28,16% les autres dépenses.

Le montant des bourses attribuées étant de 12.000 drs chacune, le coût total de formation d'un instituteur boursier en drachmes 1966 est de 8.225 + 12.000) x 3 = 60.675 drs. (l'instituteur non boursier coûte 8.225 x 3 = 24.675 drs).

ANNEXE III

ANNEXE STATISTIQUE

Avertissement :
La numérotation des tableaux reprend celle d'un questionnaire élaboré pour cette étude. Certains tableaux manquent ou ne correspondent pas toujours au modèle général proposé.

I. ENSEIGNEMENT PRIMAIRE

Remarques : Les tableaux ci-après suivent d'assez près le modèle de questionnaire compte tenu de la spécificité de l'enseignement primaire grec et de quelques lacunes statistiques.

Liste des tableaux

Tableau I a	Nombre d'enseignants à plein temps employés dans l'enseignement primaire public par sexe pour les années 1955, 1960, 1962, 1963, 1966 et estimations pour 1970, 1975, 1980.
Tableau I b	Nombre d'enseignants à plein temps employés dans l'enseignement primaire privé , par sexe, pour les années 1955, 1960, 1962, 1963, 1966 et estimations pour les années 1970, 1975, 1980.
Tableau II a	Nombre d'enseignants à plein temps employés dans l'enseignement primaire public par sexe et par groupe d'âge pour l'année 1966.
Tableau II b	Nombre d'enseignants à plein temps employés dans l'enseignement primaire privé, par sexe et par groupe d'âge, pour l'année 1966.

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Tableau III	Effectifs d'élèves et population d'âge correspondants dans l'enseignement primaire (public et privé) pour les années 1955, 1960, 1962, 1963 et estimations pour les années 1965, 1970, 1975, 1980.
Tableau IV	Nombre d'enseignants à plein temps intégrant la profession enseignante dans l'enseignement primaire (public) par sexe pendant la période 1955-1965 et estimations pour la période 1966 à 1980.
Tableau V	Nombre de nouvelles admissions, effectif total et diplômés des écoles normales d'instituteurs, publiques et privées, par sexe, pour les années 1956, 1960, 1962, 1963, 1964 et estimations pour la période 1965 - 1970.
Tableau VI	Nombre d'enseignants à plein temps quittant la profession enseignante dans l'enseignement primaire (public), par sexe, pour la période 1955-1965 et estimations pour la période 1966 à 1980.

Enseignement primaire

TABLEAU I a

Nombre d'enseignants à plein temps employés dans l'enseignement primaire public, par sexe, pour les années (1) 1955, 1960, 1962, 1963, 1966 et estimations pour 1970, 1975, 1980

	Passé					Estimations		
	1955 (2)	1960	1962	1963	1966	1970	1975	1980
Hommes	-	11327	11931	12024	14634	15600	17150	18800
Femmes	-	9434	9735	9969	11989	12900	14150	15600
Total	17533	20761	21666	21993	26623	28500	31300	34400

Notes :

(1) Pas d'information pour 1950
Tous les enseignants sont qualifiés

(2) Pour 1955 il n'existe pas de subdivision par sexe

Enseignement primaire

TABLEAU I b

Nombre d'enseignants à plein temps employés dans l'enseignement primaire privé, par sexe, pour les années 1955, 1960, 1962, 1963, 1966 et estimations pour 1970, 1975, 1980

	Passé					Estimations		
	1955	1960	1962	1963	1966	1970	1975	1980
Hommes	-	910	902	892	507	625	530	450
Femmes	-	1399	1435	1384	988	975	830	700
Total	1628	2309	2337	2276	1495 (1)	1600	1360	1150

Notes :

(1) Les écoles musulmanes ne sont pas comprises dans les statistiques de 1966. Dans les estimations, le nombre d'enseignants grecs de ces écoles, qui était d'environ 300 en 1966, a été pris en considération.

Enseignement primaire

TABLEAU II a

Nombre d'enseignants à plein temps employés dans l'enseignement primaire public, par sexe, et par groupe d'âge, pour l'année 1966

	- 24	25-29	30-34	35-44	45-54	55-64	65 +	TOTAL
Hommes	303	2222	3481	4138	3099	1382	6	14631
Femmes	661	2140	2500	3461	2574	653	3	11992
Total	964	4362	5981	7599	5673	2035	9	26623

Moyenne générale : 38,80
" pour les hommes : 39,48
" pour les femmes : 37,97

Enseignement primaire

TABLEAU II b

Nombre d'enseignants à plein temps employés dans l'enseignement primaire privé, par sexe, et par groupe d'âge, pour l'année 1966

	- 24	25-29	30-34	35-44	45-54	55-64	65 +	TOTAL
Hommes	59	151	95	91	55	51	5	507
Femmes	178	200	157	239	143	69	2	988
Total	237	351	252	330	198	120	7	1495

Moyenne générale : 35,60
Moyenne pour les hommes : 35,72
Moyenne pour les femmes : 35,52

Enseignement primaire

TABLEAU III

Effectifs d'élèves et population d'âge correspondant dans l'enseignement primaire (Public et Privé) pour les années 1955, 1960, 1962, 1963, et estimations pour les années 1965, 1970, 1975, 1980

Années	Effectifs			Population d'âge correspondant
	Public	Privé	Total	
1955	892.901	50.912	943.813	859.000
1960	839.753	61.403	901.161	827.869
1962	843.825	63.989	907.814	865.320
1963	846.368	64.726	911.094	866.610
Estimations				
1965	895.000	56.000	951.000	868.000
1970	921.000	48.000	969.000	889.000
1975	874.000	46.000	920.000	884.000
1980	865.000	45.000	910.000	870.000

Enseignement primaire

TABLEAU IV

Nombre d'enseignants à plein temps intégrant la profession enseignante dans l'enseignement primaire (public) par sexe, pendant la période 1955-1965, et estimations pour la période 1966 à 1980

	Passé				Estimations		
	1955	1956-60	1961-62	1963-65	1966-70	1971-75	1976-80
I. **Entrants**							
Hommes	414	3116	1070	2830			
Femmes	317	2661	1128	2604			
Total	728	5777	2198	5434			
II. **Ré-entrants**							
Hommes	55	55	4	17			
Femmes	7	10	-	3			
Total	62	65	4	20			
III. **Nombre total d'entrants**							
Hommes	469	3171	1074	2847	3450	3350	3650
Femmes	321	2671	1128	2607	3050	2950	3250
Total	790	5842	2202	5454	6500	6300	6900

Enseignement primaire

TABLEAU V

Nombre de nouvelles admissions, effectif total et diplômés des écoles normales d'instituteurs, publiques et privées, par sexe, pour les années 1956, 1960, 1962, 1963, 1964 et estimations pour la période 1965-1970

	1956			1960			1962			1963			1964		
	H	F	HF	H	F	F	H	F	HF	H	F	HF	H	F	HF
Nouvelles admissions (1)				631	577	1208	638	563	1201	765	640	1405			(2)
Effectif total	1631	1228	2859	1273	1111	2384	1245	1011	2256	1426	1223	2649			(2)
Diplômés	784	604	1388	618	510	1128	565	423	988	658	582	1240	774	648	1422

Notes :
(1) Pas de données pour 1956
(2) Pas de données en 1964

	1965			1966			1967		
	H	F	HF	H	F	HF	H	F	HF
Nouvelles admissions	750	700	1450	730	670	1400	750	650	1400
Effectif total	1450	1250	2700	1430	1200	2650	1450	1250	2700
Diplômés	750	650	1400	700	650	1350			

	1968			1969			1970		
	H	F	HF	H	F	HF	H	F	HF
Nouvelles admissions	625	575	1200	700	650	1350	780	720	1500
Effectif total	2150	1850	4000	2250	1950	4200	2450	2050	4500
Diplômés	600	500	1100	450	550	1000	650	600	1250

Enseignement primaire

TABLEAU VI

Nombre d'enseignants à plein temps quittant la profession enseignante dans l'enseignement primaire (Public) par sexe, pour la période 1955-1965 et estimations pour la périod 1966 à 1980

	Passé				Estimations		
	1955	1956-60	1961-62	1963-65	1966-70	1971-75	1976-80
Hommes	219	1005	520	717	1500	1700	1825
Femmes	176	1336	587	656	1700	1800	1975
Total	395	2341	1107	1373	3200	3500	3800

Note : **Il est intéressant de comparer le nombre d'enseignants qui ont quitté la profession pendant la période 1955-1965:**

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Hommes	219	159	180	210	181	275	295	225	194	316	207
Femmes	176	226	255	319	252	284	318	269	218	234	204
Total	395	385	435	529	433	559	613	494	412	550	411

II. ENSEIGNEMENT SECONDAIRE GENERAL

Remarques :

Les tableaux statistiques ne peuvent pas être présentés selon le modèle du questionnaire pour les raisons suivantes :

1. Les composantes de chaque tableau du questionnaire ne correspondent pas aux données grecques. Ainsi,

a) Tous les enseignants dans l'enseignement secondaire général sont qualifiés.

Les professeurs de lettres, de mathématiques, de sciences et d'instruction religieuse sont licenciés des facultés universitaires. Ceux qui, parmi les enseignants des autres disciplines, ne sont pas licenciés, sont diplômés de l'enseignement supérieur non-universitaire.

b) la presque totalité des enseignants dans le public sont à plein temps. Un certain nombre d'entre eux dans les disciplines où il y a pénurie (mathématiques et sciences) font même des heures supplémentaires.

c) Un nombre important d'enseignants du privé enseignent à temps partiel. Bien que nous ayons le chiffre global des enseignants du privé et le nombre d'heures d'enseignement de ceux qui travaillent à temps partiel, nous n'avons pu avoir le nombre de ceux-ci.

d) Nous avons présenté séparément les chiffres concernant les professeurs d'instruction religieuse étant donné leur importance. A noter que souvent ils sont appelés à remplacer des professeurs manquant dans d'autres disciplines.

2. Dans chaque cas où nous manquons de données répondant à la grille du questionnaire, nous essayons de présenter ce qui, parmi les données disponibles, pourrait éclairer la question.

3. Nous avons cru utile de présenter des séries complètes des données concernant les dernières années, ainsi que des renseignements pouvant compléter l'image de la situation actuelle de l'enseignement.

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Tableau VII a : Nombre d'enseignants à plein temps employés dans l'enseignement secondaire général (public) par sexe et par catégorie de disciplines (pour certaines années) de 1955 à 1965 et estimations pour 1970.

Tableau VII b : Nombre d'enseignants employés dans l'enseignement secondaire général (privé) par sexe et par catégorie de disciplines (pour certaines années) de 1955 à 1965 et estimations pour 1970.

Tableau VII c : Nombre d'heures dispensées par les enseignants à temps partiel dans les écoles secondaires privées du jour, par sexe, par occupation principale et par catégorie de disciplines pour l'année 1963.

Tableau VII d : Equivalence à plein temps des heures dispensées par les enseignants à temps partiel dans les écoles secondaires privées du jour, par sexe, par occupation principale et par catégorie de disciplines pour l'année 1963.

Tableau VIII a : Nombre d'enseignants employés dans l'enseignement secondaire général (public) par catégorie de disciplines, par sexe et par groupe d'âge, pour l'année 1966.

Tableau VIII b : Nombre d'enseignants employés dans l'enseignement secondaire général (privé) par catégorie de disciplines, par sexe et par groupe d'âge pour l'année 1966

Tableau IX : Effectifs d'élèves et population d'âge correspondant dans l'enseignement secondaire général public et privé de 1955 à 1963 et estimations pour 1965, 1970, 1975 et 1980.

Tableau X : Nombre de nominations d'enseignants par catégorie de disciplines du 1.1.1960 au 31.12.1965 (public)

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Tableau XII : Nombre d'enseignants quittant la profession enseignante dans l'enseignement secondaire général public pour la période 1955-1965 et estimations pour 1965-1980.

Enseignement secondaire général

Tableau VII a

Nombre d'enseignants à plein temps employés dans l'enseignement secondaire général (public) par sexe et par catégorie de disciplines (pour certaines années) de 1955 à 1965 et estimations pour 1970

	1955		1956		1957		1958		1959		1960		1961		1962		1963		1965		1970
	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F(1)	HF	F	HF	F	HF	F(1)	HF
Sciences	1323	152											1462		1771	260	1673	264			3200
Humanités	2354	913											2674		3103	1573	3395	1760			6400
Instruction religieuse	553	54											562		903	136	935	162			1400
Autres disciplines	1202	518											942		1096	422	1164	499			100
Total	5432	1637	5039	1535	5148	1574	5000	1553	5148	1626	5367	1681	5640		6873[2]	2391	7167	2685	7769		12000

Notes : (1) Pas de données.
(2) Dont 384 à temps partiel. Leur répartition par discipline n'étant pas connue, nous ne pouvons pas en faire abstraction.

Enseignement secondaire général

Tableau VII b

Nombre d'enseignants employés dans l'enseignement secondaire général (privé)
par sexe et par catégorie de disciplines (pour certaines années) de 1955 à 1965 (1)
et estimations pour 1970

	1955		1956		1957		1958		1959		1960		1961		1962		1963		1970
	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF
Sciences	511	69													854	161	315	48	135
Humanités	768	318													1587	807	732	388	325
Instruction religieuse	180	13													372	78	177	38	80
Autres disciplines	685	376													728	353	180	99	110
Total	2144	776	2135	803	2283	842	2437	930	2852	1093	2949	1164	3165	1282	3541	1399	1404	573	650

Notes : (1) Les chiffres de 1963 concernent les enseignants à plein temps. Ceux de 1955 et de 1962 indistinctement les enseignants à plein temps et à temps partiel. Parmi ceux de 1962 il y en a 1.663 (dont 694 femmes) à plein temps et 1.878 (dont 705 femmes) à temps partiel.

Tableau VII c

Nombre d'heures dispensées par les enseignants à temps partiel dans les écoles secondaires privées du jour par sexe, par occupation principale et par catégorie de disciplines pour l'année 1963

	Total d'heures par semaine		Nombre d'heures par discipline							
			Sciences		Humanités		Instruction religieuse		Autres disciplines	
	HF	F	HF	F	HF	F	HF	F	HF	F
Occupation principale										
a) Enseignants dans les écoles publiques										
Total pour la Grèce	4523	797	1647	145	1784	481	286	16	806	155
dont : Grand Athènes	1472	179	612	48	466	77	66	4	328	50
b) Enseignants dans les écoles privées										
Total pour la Grèce	11272	5532	2630	486	5210	3409	1169	259	2263	1378
dont : Grand Athènes	9009	4361	1995	341	4403	2770	756	106	1855	1144
c) Enseignants à la retraite										
Total pour la Grèce	736	46	276	8	337	32	53	-	70	6
dont : Grand Athènes	637	60	231	8	291	32	31	-	84	20
TOTAL GENERAL POUR LA GRECE	16531	6375	4553	639	7331	3922	1508	275	3139	1539
dont : Grand Athènes	11118	4600	2838	397	5160	2879	853	110	2267	1214

Enseignement secondaire général

Tableau VII d

Equivalence à plein temps des heures dispensées par les enseignants à temps partiel dans les écoles secondaires privées du jour, par sexe, par occupation principale et par catégorie de disciplines pour l'année 1963

	Total		Equivalence à temps plein par discipline							
			Sciences		Humanités		Instruction religieuse		Autres disciplines	
	HF	F	HF	F	HF	F	HF	F	HF	F
Occupation principale										
a) Enseignants dans les écoles publiques										
Total pour la Grèce	188	33	69	6	74	20	12	1	34	6
dont : Grand Athènes	61	7	26	2	19	3	3	0	14	2
b) Enseignants dans les écoles privées										
Total pour la Grèce	470	231	110	20	217	142	49	11	94	57
dont : Grand Athènes	375	182	83	14	183	115	32	4	77	48
c) Enseignants à la retraite										
Total pour la Grèce	31	2	12	0	14	1	2	0	3	0
dont : Grand Athènes	27	3	10	0	12	1	1	0	4	1
TOTAL GENERAL POUR LA GRECE	689	266	191	26	305	163	63	12	131	63
dont : Grand	463	192	119	16	214	119	36	4	95	51

Enseignement secondaire général

Tableau VIII a

Nombre d'enseignants employés dans l'enseignement secondaire général (public) par catégorie de disciplines, par sexe et par groupe d'âge pour l'année 1966.

	moins de 25 ans		25-29		30 - 34		35 - 44		45 - 54		55 - 64		65 ans & au-delà		Total	
	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F
Sciences	12	9	440	143	626	143	604	118	443	84	445	22	5	-	2575	519
Humanités	65	61	1539	1194	1430	855	1373	799	766	402	681	109	8	-	5862	3420
Instr. religieuse	-	-	66	27	460	99	512	102	169	10	122	-	5	-	1334	238
Autres discipl.	8	8	83	61	212	159	277	154	147	74	99	23	2	-	828	479
Total	85	78	2128	1425	2728	1256	2766	1173	1525	570	1347	154	20		10599	4656

Enseignement secondaire général

Tableau VIII b

Nombre d'enseignants employés dans l'enseignement secondaire général (privé) par catégorie de disciplines, par sexe et par groupe d'âge pour l'année 1966

	moins de 25 ans		25 - 29		30 - 34		35 - 44		45 - 54		55 - 64		65 ans et au-delà		Total	
	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F
Sciences	3	2	81	26	136	15	122	14	126	11	94	16	26	-	588	84
Humanités	19	17	150	91	192	136	264	161	183	83	129	12	36	3	973	503
Instr. religieuse	-	-	127	36	120	17	47	7	45	4	17	-	12	-	368	64
Autres disciplines	6	6	72	59	47	30	64	29	33	10	14	6	4	-	240	140
TOTAL	28	25	430	212	495	198	497	211	387	108	254	34	78	3	2169	791

Enseignement secondaire général

Tableau IX

Effectifs d'élèves et population d'âge correspondant dans l'enseignement secondaire général public et privé de 1955 à 1963 et estimations pour 1965, 1970, 1975 et 1980

Années passées	Enseignement public		Enseignement privé		Total			Population d'âge correspondant
1955	165.399		20.286		185.685			823.751
1956	173.111		22.019		195.130			795.883
1957	165.544		23.145		188.689			785.993
1958	176.098		26.050		202.148			789.973
1959	184.939		30.525		219.464			809.189
1960	206.898		34.606		241.504			834.469
1961	217.068		38.067		255.135			869.270
1962	227.281		41.730		269.011			879.220
1963	241.394		43.068		284.462			877.951
Estimations	Gymnases	Lycées	Gymnases	Lycées	Gymnases	Lycées	Total Général	
1965	308.000	(1)	40.000	(1)	348.000	(1)	348.000	834.000 (2)
1970	303.000	97.000	11.200	9.200	314.200	106.200	420.400	854.000 (2)
1975	339.000	161.000	10.050	8.250	349.050	169.250	518.300	910.000 (2)
1980	341.000	170.000	9.100	7.400	350.100	177.400	527.500	912.500 (2)

Notes : (1) Jusqu'en 1965 le gymnase n'avait pas été séparé en deux cycles (1er cycle, gymnase - 2ème cycle, lycée).

(2) Chiffres tirés du livre "Développement démographique en Grèce" de G. Siambos, Athènes 1962.

Enseignement secondaire général

Tableau X

Nombre de nominations d'enseignants par catégorie de disciplines du 1-1-1960 au 31-12-1965 (public)

Sciences	1.557
Humanités	3.103
Instruction religieuse	865
Autres disciplines	334
TOTAL	5.859

1.600 d'entre eux n'ont pas accepté leur nomination. Le nombre des enseignants intégrant effectivement la profession s'élève par conséquent à 4.259.

Enseignement secondaire général

Tableau XI

Nombre de nouvelles admissions, effectif total et diplômés dans l'enseignement supérieur par sexe et par grande catégorie de disciplines pour les années 1956 à 1963 et estimations pour les années 1965 à 1975 (sans subdivision par sexe)

	1956		1957		1958		1959		1960		1961		1962		1963		1965	1966	1967	1968	1969	1970	1975
	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	Total	Total	Total	Total	Total	Total	Total
1. Nouvelles admissions																							
1) Sciences	566	—	456	66	475	70	612	92	694	96	1087	169	1136	221	1507	289	1400	1500	1650	1800	1900	2000	2600
2) Humanités	596	—	598	356	650	387	697	425	618	391	773	511	714	540	920	743	1350	1400	1450	1550	1600	1630	1900
3) Autres disciplines	330	—	494	114	390	116	415	109	380	123	281	75	222	62	202	45	200	210	230	250	225	220	280
2. Effectif total																							
1) Sciences	1717	—	1705	237	1783	253	1675	261	1618	225	2268	363	2922	523	3841	725	3500	3800	4150	4400	4700	5000	6500
2) Humanités	1845	—	1944	1212	2234	1382	2344	1435	2367	1477	2316	1479	2537	1723	2845	2057	4050	4200	4380	4550	4700	4890	5700
3) Autres disciplines	1032	—	1330	322	1380	367	1492	386	1344	370	1149	323	1014	260	896	230	880	920	1000	1100	990	960	1230
3. Diplômés																							
1) Sciences	281	26	239	30	299	47	294	49	294	48	313	52	336	69	355	64	420	460	490	530	570	600	780
2) Humanités	280	164	294	192	333	215	337	202	495	304	408	251	421	272	557	370	725	760	790	820	850	880	1030
3) Autres disciplines	220	55	43	18	286	67	225	47	304	79	381	105	318	85	306	88	230	170	185	200	180	175	225

Enseignement secondaire général

Tableau XII

NOMBRE D'ENSEIGNANTS QUITTANT LA PROFESSION ENSEIGNANTE DANS L'ENSEIGNEMENT SECONDAIRE GENERAL PUBLIC POUR LA PERIODE 1955-1965 ET ESTIMATIONS POUR 1965-1980

Années passées	Nombre d'enseignants quittant la profession enseignante (1)	Nombre d'enseignants en exercice (2)
1955	80	5.432
1956	139	5.039
1957	136	5.148
1958	129	5.000
1959	144	5.148
1960	229	5.367
1961	146	5.640
1962	161	6.483
1963	219	7.167
1964	276	-
1965	166	7.769
Estimations (3)		
1966-1970	1.200	-
1971-1975	1.450	-
1976-1980	1.500	-

Notes : (1) Il s'agit uniquement des enseignants qui avaient une nomination permanente
(2) Remplaçants et temporaires compris
(3) Ces estimations ont été calculées sur la base des tendances passées. Elles intéressent les professeurs de toutes les spécialités.

III. ENSEIGNEMENT SECONDAIRE TECHNIQUE

Remarques

a) Le personnel enseignant dans l'enseignement technique et professionnel est dans sa presque totalité employé à temps partiel. Les enseignants des matières théoriques appartiennent généralement à l'enseignement secondaire général. Les enseignants des matières techniques exercent en principe une autre profession.

b) Quand il n'est pas précisé si nos données se rapportent aux écoles publiques ou aux écoles privées, elles se réfèrent aux secteurs public et privé à la fois.

c) Les données présentées dans les tableaux statistiques ne suivent pas toujours le modèle du questionnaire pour les raisons suivantes :

- Nous manquons de données sur les renseignements demandés dans les tableaux XIV, XVI et XVIII du questionnaire.
- Les données grecques ne correspondent pas exactement aux termes dans lesquels sont posées les questions.
- Nous avons ajouté des renseignements pouvant aider à comprendre la situation actuelle de l'enseignement technique et professionnel.

Liste des tableaux

Tableau XIII a Nombre d'enseignants dans l'enseignement technique et professionnel public et privé par sexe pour les années 1957 à 1963.

" XIII b Nombre d'enseignants et nombre d'heures d'enseignement dispensées par semaine dans les écoles techniques (publiques et privées) par qualification et par sexe pour la Grèce et le Grand Athènes (1963).

" XIII c Nombre d'enseignants et nombre d'heures d'enseignement dispensées par semaine dans les écoles professionnelles (publiques et privées) par qualification et par sexe (1963).

" XIII d Equivalence à plein temps du personnel enseignant (public et privé) et rapport élèves-maître (1963).

" XIII e Nombre d'enseignants dans les écoles professionnelles et techniques publiques et privées par sexe et catégorie d'école (1963).

Tableau XIV a (non disponible)	Nombre d'enseignants à plein temps employés dans l'enseignement secondaire technique par qualification, par sexe et par groupes d'âge pour l'année 1960 (ou année la plus récente).
" b	Nombre d'enseignants à temps partiel employés dans l'enseignement secondaire technique par qualification, par sexe et par groupes d'âge pour l'année 1960 (ou année la plus récente).
" XV	Effectifs d'élèves et population d'âge correspondant dans l'enseignement secondaire technique et professionnel pour les années 1959 à 1963 (public et privé).
" XVI a (non disponible)	Nombre d'enseignants à plein temps intégrant la profession enseignante dans l'enseignement secondaire technique, par origine, par qualification, par grandes catégories de disciplines, par sexe pour la période 1951 à 1962 (ou année la plus récente) et estimations pour la période 1963 à 1970 (éventuellement jusqu'à 1980). I - Enseignement secondaire technique court II - Enseignement secondaire technique long
" XVII	Nouvelles admissions, effectif total et diplômés de l'école de formation du personnel de l'enseignement technique et professionnel (SELETE).
" XVIII a (non disponible)	Nombre d'enseignants à plein temps quittant la profession enseignante dans l'enseignement secondaire technique par qualification, par grandes catégories de disciplines, par sexe, pour la période 1951 à 1962 (ou année la plus récente) et estimations pour la période 1963 à 1970 (éventuellement jusqu'à 1980).
" b	Nombre d'enseignants à temps partiel quittant la profession enseignante, dans l'enseignement secondaire technique par qualification, par grandes catégories de disciplines, par sexe, pour la période 1951 à 1962 (ou année la plus récente) et estimations pour la période 1963 à 1970 (éventuellement jusqu'à 1980).

Enseignement technique et professionnel

Tableau XIII a

Nombre d'enseignants dans l'enseignement technique et professionnel public et privé par sexe pour les années 1957 à 1963

	Enseignants de l'enseignement technique (1)			Enseignants de l'enseignement professionnel (1)			Total général		
	Total	H	F	Total	H	F	Total	H	F
Passé									
1957	1.555	1.502	53	-	-	-	-	-	-
1958	1.820	1.767	53	-	-	-	-	-	-
1959	1.738	1.688	50	1.275	-	-	3.013	-	-
1960	1.862	1.803	59	1.257	-	-	3.119	-	-
1961	2.031	1.961	70	1.302	-	-	3.333	-	-
1962	2.875	2.751	124	1.458	-	-	4.333	-	-
1963	3.415	3.222	193	1.147	753	394	4.562	3.975	587
Estimations									
1965	3.600	3.400	200	1.900	-	-	5.500	-	-
1970	5.000	4.700	300	2.500	-	-	7.500	-	-

Note

(1) La répartition du total des enseignants entre les établissements publics et privés est donnée pour l'année 1963 dans le tableau XIII e

Tableau XIII b

Nombre d'enseignants et nombre d'heures d'enseignement dispensées par semaine dans les écoles techniques (publiques et privées) par qualification et par sexe pour la Grèce et le Grand Athènes (1963)

	Nbre d'enseignants Total pr. la Grèce		Nbre d'enseignants Grand Athènes		Nbre d'heures d'enseignt. théorique		Nbre d'heures d'enseignt. pratique	
	HF	F	HF	F	HF	F	HF	F
a) Diplômés de l'enseignement supérieur universitaire	- 1.921	- 109	689	26	- 15.983	730	- 1.070	85
b) Diplômés de l'enseignement supérieur non universitaire	104	14	37	3	833	68	-	-
c) Diplômés de l'école des sous-ingénieurs	300	2	108	1	3.415	10	690	-
d) Diplômés de l'enseignement technique & professionnel du second degré	894	44	459	21	6.671	332	6.240	331
e) Diplômés de l'enseignement général du second degré	70	22	27	5	408	165	216	21
f) Enseignants non qualifiés	126	2	36	1	213	-	1.990	33
TOTAL	3.415	193	1.356	57	27.523	1.305	10.206	470

Enseignement technique et professionnel

Tableau XIII c

Nombre d'enseignants et nombre d'heures d'enseignement dispensées par semaine dans les écoles professionnelles (publiques et privées par qualification et par sexe (1963)

	Nombre d'enseignants		Nombre d'heures d'enseignement théorique		Nombre d'heures d'enseignement pratique	
	HF	F	HF	F	HF	F
a) Diplômés de l'enseignement supérieur universitaire	733	169	4.110	665	659	270
b) Diplômés de l'enseignement supérieur non universitaire	57	27	435	187	3	3
c) Diplômés de l'école des sous-ingénieurs	4	0	6	0	2	0
d) Diplômés de l'enseignement technique et professionnel second degré	242	139	903	531	2.566	1.479
e) Diplômés de l'enseignement général du second degré	76	52	431	310	134	69
f) Enseignants non qualifiés	35	7	124	42	314	179
TOTAL	1.147	394	6.009	1.735	3.678	2.000

Enseignement technique et professionnel

Tableau XIII d

Equivalence à plein temps du personnel enseignant (public et privé) et rapport élèves/maître (1963)

	Nombre d'heures d'enseignement		Equivalence plein temps d'enseignement		Equivalent en enseignants	Nombre d'élèves	Rapport élèves/maître
	théorique	pratique	théorique	pratique			
Enseignement technique	27.523	10.206	1.101	340	1.441	48.064	33
Enseignement professionnel	6.009	3.678	240	123	363	8.757	24

Enseignement technique et professionnel

Tableau XIII e

Nombre d'enseignants dans les écoles professionnelles et techniques publiques et privées par sexe et catégorie d'écoles (1963)

Catégories d'écoles	Enseignants (total)				Enseignants des établissem. publics Total	Enseignants des établis. privés Total	% des enseignants des Ets. privés
	Total	H	F	%F			
Ecoles profession.							
Agricoles	99	97	2	2	59	40	40,4
Commerciales	108	76	32	29,6	-	108	100
Enseignement ménager	178	33	145	81,5	36	142	79,8
Navales	62	61	1	1,6	62	-	-
Services	569	356	213	59,8	262	307	54
Ecclésiastiques	131	130	1	0,8	131	-	-
TOTAL	1.147	753	394	34,4	550	597	52
Ecoles techniques	3.415	3.222	193	5,6	1.814 (1)	1.601 (2)	46,9 (3)

Notes

(1) dont 130 femmes

(2) dont 63 femmes

(3) le corps enseignant féminin des établissements privés représente 32,6% de l'ensemble du corps enseignant féminin.

Enseignement technique et professionnel

Tableau XV

Effectifs d'élèves et population d'âge correspondant dans l'enseignement secondaire technique et professionnel pour les années 1959 à 1963 (public et privé)

Années	Effectifs			Population d'âge correspondant (1)
	Ecoles techniques	Ecoles professionnelles	Total	
Passé				
1959	30.714	14.180	44.894	809.189
1960	32.699	13.918	46.617	834.469
1961	34.430	14.438	48.868	869.270
1962	43.589	12.556	56.145	879.220
1963	48.064	8.757	56.821	877.951
Estimations				
1965	52.500 (2)	11.500	64.000	834.000
1970	70.000 (3)	11.000	81.000	854.000

Notes

(1) 12 à 18 ans

(2) Soit 50.000 garçons et 2.500 filles

(3) Soit 66.000 garçons et 4.000 filles

Enseignement technique et professionnel

Tableau XVII

Nouvelles admissions, effectif total et diplômés de l'Ecole de Formation du Personnel de l'Enseignement Technique et Professionnel (SELETE)

	1959	1960	1961	1962	1963	1964	1965
I. Section A.							
1. Nouvelles admissions	59(1)	56	52	42	38	40	32
2. Effectif total	59	56	52	42	38	40	32(2)
3. Diplômés	53	50	45	24	23	35	
II. Section B_1							
1. Nouvelles admissions			23	40	64	37	64
2. Effectif total			23	63	104	151(2)	151(2)
3. Diplômés				10	19		
III. Section C.							
1. Nouvelles admissions				29	27	61(3)	11
2. Effectif total				29	27	61	11
3. Diplômés				28	20	40	9
IV. Section D.							
1. Nouvelles admissions		61	61	46	46	64	64
2. Effectif total		61	61	46	46	64	64
3. Diplômés			55		40		55

Notes:

(1) Cette première promotion a été formée en un seul semestre

(2) Chiffres pas encore disponibles

(3) Cet effectif est composé de deux promotions sorties en 1964, l'une ayant suivi les cours pendant les 2 semestres de l'année scolaire 1963/64 et l'autre pendant 2 périodes estivales en 1963 et 1964.

SWEDEN

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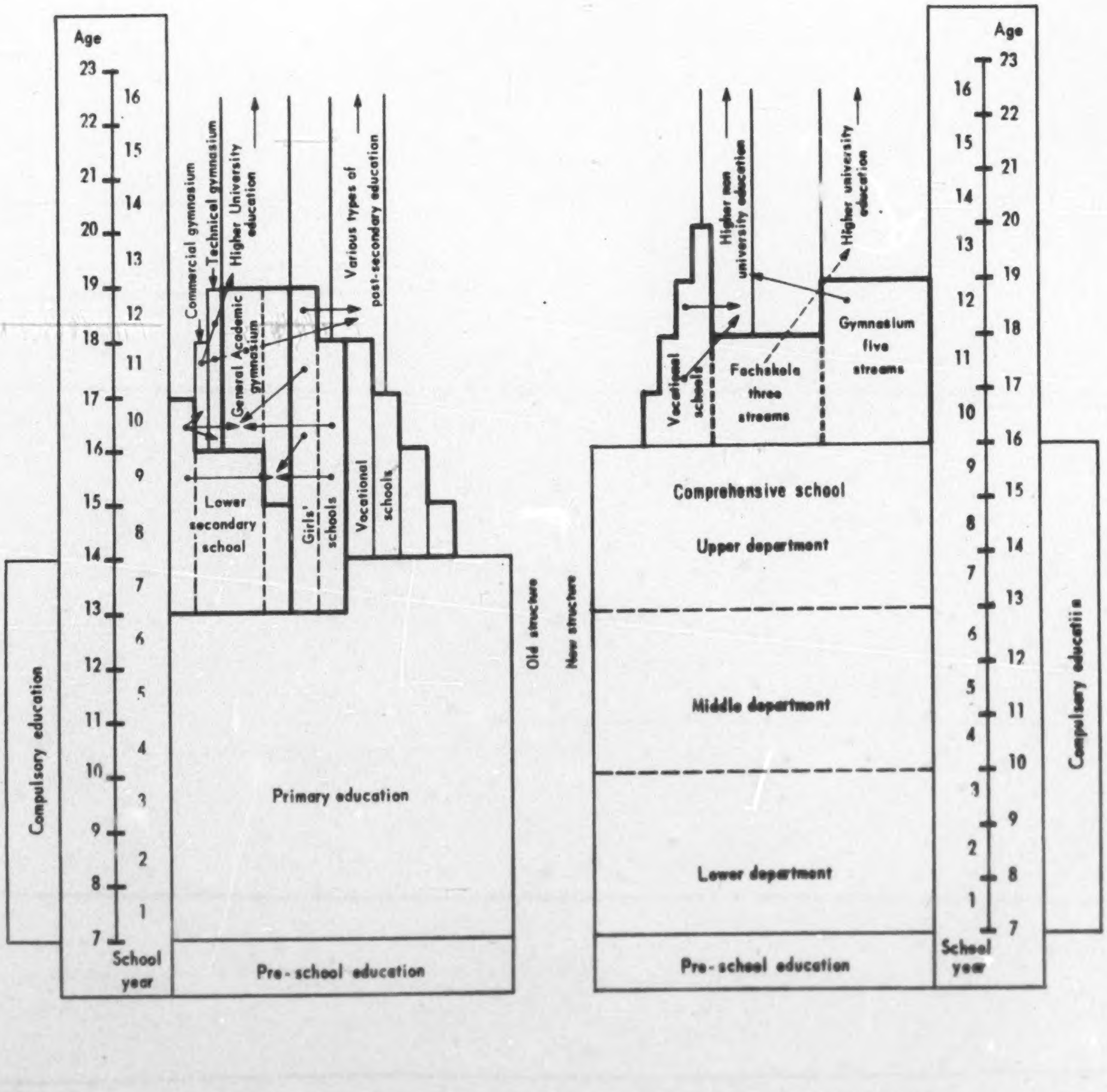
DIAGRAMME OF THE OLD AND THE NEW STRUCTURE OF THE SWEDISH EDUCATIONAL SYSTEM


Age
School year
Compulsory education
Commercial gymnasium
Technical gymnasium
Higher University education
Various types of post-secondary education
General Academic gymnasium
Lower secondary school
Girls' schools
Vocational schools
Primary education
Pre-school education
Old structure
New structure
Higher non university education
Higher university education
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Fackskola three streams
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Upper department
Middle department
Lower department
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School year
Age
Compulsory education

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The O.E.C.D. Committee for Scientific and Technical Personnel has shown a keen interest in problems connected with the demand for and supply of teachers. The latter soon showed itself to be a vital element in the quantitative and qualitative development of the educational system. The attempt to balance the supply of teachers with the demand for their services necessitates the operation of specific training, recruitment and utilisation policies in what is one of the most important segments of highly qualified manpower.

Questions concerning the demand for and supply of teachers cropped up in several studies carried out by the O.E.C.D. particularly in connection with a) general studies on scientific and technical personnel in O.E.C.D. countries, b) general policy and planning in the field of education in some Member countries, c) the recruitment and training of mathematics and science teachers.

In order to take stock of the current and future teacher situation in primary and secondary education both from a quantitative and qualitative point of view, the Committee decided to prepare a report which would be a synthesis based on data gathered in a certain nomber of O.E.C.D. Member countries, to be presented in national monographs.

The present monograph, which is the Swedish contribution to the series on the training, recruitment and utilisation of teachers in primary and secondary education, has been prepared by the Secretariat. Miss Ulla-Britt Hellquist, Consultant to the Directorate for Scientific Affairs, was responsible for the work.

Is has been done in close collaboration with the Swedish authorities, particularly with the Planning and Budget Secretariat of the Ministry of Education.

CHAPTER I

DEMAND AND SUPPLY OF TEACHERS

1. Some Factors Determining Demand and Supply of Teachers

The Swedish educational system has since the beginning of the 1950's undergone a rapid expansion. The main cause for this development has been the strongly growing individual demand for education resulting in educational and student welfare reforms causing further increase in the demand for education. Thus, the length of compulsory schooling has been extended and the enrolment ratios as well as enrolment in absolute terms in non-compulsory schooling has shown a highly increasing trend.

The impact of this expansion on the need for teachers does, of course, depend on whether the teacher productivity is being raised simultaneously, i.e. by a more efficient initial teacher training as well as continuous refresher programmes or by the employment of less teacher intensive teaching methods. In other words, such a raise in efficiency would imply that one teacher could educate more students than before this change in productivity. It could also mean that one teacher could educate the same number of students but give them an education of better quality. Using broad terms it could be stated that an objective of the Swedish educational system is to provide the increasing number of students with a better education. Thus, the pupil/teacher ratioshave not shown an increasing trend during the last period of time. As a matter of fact, the pupil/teacher ratio in the comprehensive school has decreased up to the school year 1965/66. Consequently, the enrolment expansion has necessitated a large increase in the need for teachers. It should, however, be noted that vivid pedagogical research and development work is now taking place in Sweden, of which the results might imply a change of teaching methods and thereby a different approach to teacher needs.

The needs for teachers posed by the Swedish educational sector, has, however, not been matched with a sufficient teacher supply, the shortage being most striking as regards university trained teachers. This shortage must, of course, be seen against the background of the prevailing general scarcity of highly qualified manpower in the Swedish economy. In this situation a mere increase of the capacity of teacher training institutions might not ensure that the educational system will get the required number of teachers. The propensity to enter the teacher profession is undoubtedly dependent on factors such as working conditions. salary levels and promotion possibilities and how these compare with those of other professions outside the educational sector, as well as general teacher recruitment policies and their efficiency. These aspects will be further developed in the following chapters.

2. Development of Demand and Supply

(a) Primary level

The lower department of the new comprehensi[illegible] school, includes grade 3, whereas the corresponding lev[illegible]earlier comprised only grades 1 and 2. This evidently has affected the need for lower department teachers. The number of lower department teachers required increased from around 13,000 in 1963 to some 14,200 in 1960 and is estimated to about 16,000 in 1965/66 and 1966/67. The shortage of lower department teachers has previously been of rather insignificant proportions, but has in recent years shown a tendency to increase. The number of unqualified persons teaching in the lower department amounted to over 1,300 both in the autumn 1965 and autumn 1966. The main reasons for this increasing shortage seem to be that an increasing number of lower department teachers teach at the middle department and the rapid decrease in the average class sizes. In the autumn 1966, nearly 800 lower department teachers taught at the middle department. Taking this into consideration the shortage of lower department teachers amounted to some 600.

Middle department needs reached their peak in 1960/61 when some 21,500 teachers were required. The need has declined steadily, falling to about 18,000-19,000 in 1965/66 and 1966/67 according to estimates made. The decrease is estimated to continue. This decline is mainly attributable to two factors: demographic developments and the fact that grades 7 and above of the "folkskola" are being replaced by the upper department of the comprehensive school, where the teaching is in principle not performed by middle department teachers without supplementary training. At present about 40 per cent of the teaching in theoretical subjects in the upper department should be done by supplementary trained middle department teachers. The need for such teachers has steadily increased from some 1,100 in 1960/61 to some 4,400 in 1966/67.

The teaching of unqualified persons in the middle department has successively increased and amounted to less than 1,000 in 1960/61 and to some 2,300 in both 1965/66 and 1966/67. Of these 2,300, 800 were lower department teachers. At the same time, supplementary trained middle department teachers filled some 2,800 full-time posts in the upper department and lower secondary schools, while the need was about 4,400. The shortage was accordingly some 1,600 full-time posts. This shortage corresponded to the teaching done by middle department teachers without the required supplementary training - namely 1,600 full-time posts. The teacher situation for middle department teachers, with or without supplementary training, has thus deteriorated substantially from 1960, when the supply covered the needs of both the middle department and the upper department, to 1966, showing a total shortage of over 2,000. The reason is mainly the rapid decrease in class sizes and the expansion of the upper department.

The intake to primary (lower and middle department) teacher training increased in 1965/66 and 1966/67 which obviously has not yet influenced the supply.

(b) Secondary level

The lower secondary level comprises the upper department of the comprehensive school and the parallel equivalent stages of the "realskola" and girls' schools which still remain in existence. At the upper secondary level are the "gymnasia", the "fackskolor" and the vocational schools. The teachers of theoretical subjects at the secondary level are required to hold a full university teaching degree: with the following exception: about 40 per cent of the teaching force in the comprehensive school upper department should consist of teachers originally trained for the middle department who have received supplementary training.

The outstanding feature of the educational expansion has been the large increase in the need for teachers of theoretical subjects. Pupils entering the "realskola" and girls' schools in 1940 comprised 20 per cent of the relevant age group, compared with nearly 40 per cent in 1954. During the same period, the number of entrants to the "gymnasium" increased from 6 per cent of the relevant age group to about 15 per cent.

During the period 1953-1963 the need for university graduates as teachers of general theoretical subjects (technical and commercial subjects excluded) in the upper and lower secondary schools (vocational schools are excluded) and the upper department of the comprehensive school more than doubled, rising from about 7,000 to over 15,000 full-time posts. During the same period, the shortage of this teacher category rose from about 1,000 to over 3,000 if shortage is defined as teaching expressed in full-time posts done by non-graduates irrespective of competence in the specific subject.(1) From 1960 to 1963 the need rose by more than 2,000 full-time posts, but the shortage remained fairly stable. From 1963-1966 the need increased by some 1,000 posts but the shortage decreased from some 3,400 to around 2,700 according to the same definition as above. Evidently, the situation ameliorated in the autumn 1966.

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(1) The shortage of teachers at secondary level could be measured in different ways. The estimate used here is based on the number of hours taught by persons without certain education (university level, irrespective of competence in specific subjects). However, basing the assessments on competence in specific subjects, the shortage would be higher. Another possible basis would be the number of unqualified persons, which would give still other estimates.

The shortage has earlier been and is still very unevenly distributed among the different types of schools and levels. Eighty per cent of the total shortage affects thus the upper department and the lower secondary schools. However, only 60 per cent of the total need for teachers arises from these schools. The shortage is most felt in the subjects, mathematics and natural sciences which have shortages of over 50 per cent. In the technical and commercial subjects the need for university graduates as teachers is estimated to be 1,200 and 500 respectively in the autumn 1966. The shortage, defined as above, amounted roughly to one-third of the need, which shortage, to a great extent, was filled by "gymnasium engineers" and "gymnasium economists", who were entitled to permanent posts under certain specific conditions.

To summarise, the total shortage of teachers for the upper department, higher and lower secondary schools (excl. vocational schools) in theoretical subjects (subject teachers) amounted in 1966 to some 5,000 full-time posts, or less than 20 per cent of the total need. As noted earlier, this shortage was unevenly distributed among the different types of schools, regions and subjects. The regional disparities will be further discussed in the following section.

(c) Geographical characteristics.

The geographical inequalities of the teacher situation depend quite obviously on the extent of the relative teacher shortage. If the relative shortage is substantial the geographical distribution tends to be uneven among the different regions. If the teacher situation is satisfactory the geographical distribution tends to be even.

Compared to the total demand the shortage of primary teachers has been comparatively small - some 5 - 15 per cent. In the table below the proportion of primary teachers with the required teacher training for the lower and middle department in the 25 counties of Sweden is shown.

Table 1: Proportion of Full-time Primary Teachers in Normal Classes in the Lower and Middle Department with Required Teacher Training by County, Autumn 1966

Proportion of full-time teachers %	Lower department Number of counties	Middle department Number of counties
60-65		1
66-70		1
71-75		–
76-80		–
81-85	1	5
86-90	14	9
91-95	9	9
96-100	1	
Average over all counties	90,8	87,2

Note: Part time teachers and teachers in special classes are excluded.
In the figures above teachers in the lower department with middle department teacher training are not included in the number of qualified teachers.

As seen above the distribution is rather even in both the lower department and - with two exceptions - in the middle department. The teacher situation is worse both for the lower and the middle departments in the City of Stockholm while it is best in the south of Sweden. Concerning the lower department it is quite favourable in the far north of Sweden.

At the secondary level the teacher shortage is much worse when compared to the total demand. In the table below the proportion of teaching in theoretical subjects done by university graduates and supplementary trained middle department teachers at the upper department and in lower secondary schools is shown.

Table 2 Proportion of Teaching in Theoretical Subjects done by University Graduates and Supplementary Trained Middle Department Teachers at the Upper Department and the old Lower Secondary Schools by County, Autumn 1966

Proportion of teaching	Upper department	Lower secondary schools
46-50	1	
51-55	1	
56-60	3	1
61-65	6	1
66-70	5	5
71-75	2	2
76-80	1	8
81-85	3	3
86-	2	4
Average over all counties	68,5	78,5

Note: Supplementary trained middle department teachers are entitled to permanent positions only at the upper department - not at the old lower secondary schools. As the upper department rapidly replaces the old lower secondary schools it seems justified to include the supplementary trained middle department teachers as well at the lower secondary schools.

As seen above, the shortage is very unevenly distributed among the different counties. The geographical distribution is quite unlike that of the primary level. The southern counties around Malmö, the City and county of Stockholm, the county of Uppsala and the county of Gothenburg have a favourable teacher situation while most of the northern counties and some counties in the middle and the west of Sweden have a very unfavourable teacher situation.

At the upper secondary level the geographical distribution is much more even. Below is shown the proportion of teaching done by university graduates in the "gymnasium".

Table 3: Proportion of Teaching done by University Graduates in the "Gymnasium", Autumn 1966

Proportion of teaching	Number of counties
80-85	2
86-90	4
91-95	16
96-100	3
Average over all counties	92.4

Note: In the fackskola the situation is worse and the distribution more uneven, which to a certain degree, depends on the fact that the appointments to permanent positions have been delayed by the late agreement on teacher salaries (14th Devember 1966).

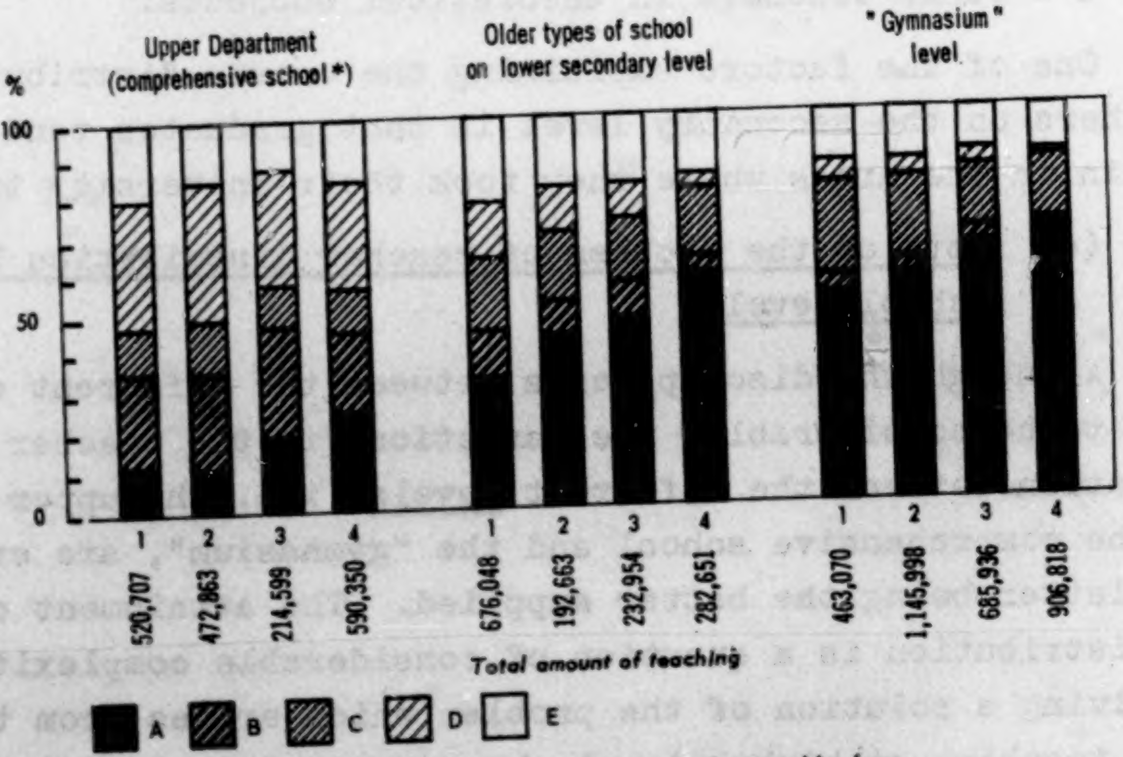
In the gymnasium the geographical distribution is quite even. As for the upper department, the situation is better than the average in and around Stockholm, Uppsala, Gothenburg and Malmö.

The large differences in the geographical distribution of primary teachers and of secondary special subject teachers seem at first rather astonishing. The probable explanation is the localization of teacher training. The shortage of secondary special subject teachers is least in the counties situated near the universities and gets - if one generalizes - worse the further one gets from a big university.

At the primary level the teacher training is very decentralised - nearly every county has its own teacher training institutions at this level. The bad position of the City of Stockholm is hard to explain. Perhaps the decisive factor is the housing difficulties in Stockholm.

One of the influential factors affecting the extent of qualified teaching seems to be size of community. The differences in 1961(1) in teacher shortages for the secondary level between communities of varying size are shown in the following diagram.

Diagram 1. Distribution of the total amount of teaching among different teacher categories in four types of municipalities and three types of schools, autumn 1961



* Refers only to the actual upper department, not equivalent to older forms.

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(1) Shortages are here measured on the basis of competence in specific subjects.

The figures 1 - 4 indicate the different types of municipalities, i.e. those with:

1 = 0 - 10 thousand inhabitants
2 = 10 - 30 " "
3 = 30 -100 " "
4 = 100 - " "

The vertical columns represent the total amount of teaching broken down into the five types of teachers, which are represented by the various shaded areas as follows:

A = Teachers qualified for posts as assistant or senior masters.

B = Elementary teachers (middle department teachers) with supplementary training.

C = Teachers with the required theoretical university training but without the practical educational course.

D = Elementary teachers without supplementary training.

E = Other teachers in theoretical subjects.

One of the factors explaining the uneven distribution of teachers on the secondary level is that graduates tend to remain in the areas where they took their university training.

(d) Note on the problem of teacher distribution by school level

Although the discrepancies between the different counties seem to be considerable, the variations in the teacher supply situation between the different levels, i.e. the upper department of the comprehensive school and the "gymnasium", are even greater, the latter being the better supplied. The attainment of equality of distribution is a question of considerable complexity, involving a solution of the problem which arises from the fact that teaching at higher levels has more "status" than teaching at lower levels. Also, many teachers are of the opinion that working conditions are more strenuous in the comprehensive school, a fact which could partly explain the recruitment difficulties of the upper department.

(e) Projected teacher requirement and supply

The great shortage of trained teachers must not be seen as an isolated phenomenon, since it is mainly an effect of the overall scarcity of highly qualified manpower prevailing in the entire Swedish economy. Educational planning has been based on forecasts which, to a certain extent, have failed.

As for the lower department the reasons are mainly that the number of births has been underestimated and that class sizes have been decreasing at a more rapid pace than expected. Middle Department teacher requirements (1) have been set too low for the same reasons as above and, furthermore, since an unexpected proportion of those primary teachers undergoing supplementary training for the upper department have proceeded to further academic studies.

The present shortage of academic special subject teachers differs considerably from what has been previously forecasted. This is because the demand for teachers in practically all forms of schooling has been seriously underestimated and that the supply often has been overestimated.

However, the major deficiency in the forecasts of teachers with university training lies in the fact that it has not been possible to take into account, in numerical terms, the total demand for and supply of academically trained personnel.

As the Forecasting Institute of the Central Bureau of Statistics has only begun its work on a new teacher forecast for these categories it is not at present possible to illustrate the tendency of choice of a teaching career.

The expansion of the educational system causes an additional need for university trained teachers - excluding vocational schools but including teacher training - which may be estimated at about 2,500 in general, technical and economic subjects for the years 1967/68 - 1970/71. Since the shortage is some 3,200 and replacements perhaps 1,500, the recruitment requirement would thus be 7,000 in four years, or 1,750 per year, which corresponds to a substantially higher intake to practical training for teachers.

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(1) Including those with supplementary training intended for the upper department.

The planning of the supply of academically trained teachers is complicated, since at present no specific university-level training exists exclusively for prospective teachers. However, the capapcity of the practical training programme for secondary teachers will, according to the government bill on reformed teacher training, increase a little during the remainder of the decade, which means that 2,300 persons will be trained yearly.

As far as can be judged now, it is considered probable that some shortage will remain in 1970, especially in the science subjects.

Pending the issue of a new special subject teacher forecast it is difficult to make a definite pronouncement, especially concerning the situation during the 1970's. The need for academically trained special subject teachers during the 1970's depends also on decisions which have not yet been made. This applies particularly to the vocational schools, which will be the subject of a bill to be presented to the spring session of parliament.

This implies, too, that it is difficult to make definite pronouncements concerning the need for vocational teachers. The vocational teacher training system, however, was greatly expanded in 1966/67.

As regards the future need for primary teachers, two factors in particular make any calculation very difficult. In the first place the Board of Education issued directives to the local and regional school authorities in the spring of 1966 concerning the distribution of pupils by classes in the Comprehensive School in order to arrest the continuous lowering of the class sizes and to attain the average class size as intended in 1962. Particularly in the middle department the size of classes is definitely below the size presumed at that time. Before an analysis is made of the results for the autumn of 1966, it is difficult to decide what the effect will be. In the second place the number of births increased more than expected in 1963 and 1964, while in 1965 and 1966 the birth rate appears to have stagnated. In 1965 the

Swedish Central Bureau of Statistics issued a population forecast based on three different assumptions of the future birthrate.

In January 1967 the Forecasting Institute of the Central Bureau of Statistics issued a forecast on primary teachers, which, in view of the many uncertain factors, contains a very large number of assumptions as regards number of births, number of teachers remaining in the teaching profession, number of graduates and number of middle department teachers taking advanced training courses. The assumptions concerning the number of teachers remaining in the teaching profession and the average amount of teaching done are based on very extensive analyses of teacher statistics for 1963 and 1964.

Owing to the many alternatives a detailed account of the results is out of the question. Certain fairly clear conclusions, however, seem possible. A greatly increased intake to middle department teacher training is required. If the size of class in the middle department is raised and the educational capacity is greatly increased, it should be possible to eliminate the present shortage of teachers by the beginning of the 1970's. As regards lower department teachers the present educational capacity appears in the long run to be too high and to involve a risk of a surplus during the 1970's. As regards middle department teachers with further training for the upper department it appears probable that the shortage can be eliminated in the 1970's with the present further training capacity.

In the government bill on reformed teacher training (see below), also presented in January 1967, it is proposed that the intake to teacher training for middle department should be raised from about 1,350 to 1,800. For the next few years it is proposed that the present intake to lower department teacher training should be maintained. Of interest in this context is also that the reformed primary teacher training, that is proposed, is intended to provide greater possibilities for teachers to teach above the level they are trained for.

The Bill also states that one should not adopt too narrow an attitude in the provision of teacher training facilities. Trained teachers are increasingly demanded outside the actual educational system.

Since the educational reforms have to a large extent changed the required teacher qualifications, in-service training has become of paramount importance. The expansion of these programmes which has got under way will, therefore, continue.

CHAPTER II

ALLOCATION OF MANPOWER TO THE EDUCATIONAL SECTOR

The first question we will here be concerned with regards the distribution of qualified manpower to the educational sector in comparison with the total Swedish economy as reflected by the plans for expansion of the educational system.

We will thus discuss the possible effects if the educational sector's estimated need for manpower were satisfied. Hence the problem whether there actually are sufficient instruments to direct the amount of personnel demanded by this sector will fall outside the topic of this discussion.

The Swedish school system as well as the system of higher education have in the last years undergone a rapid expansion, which has been governed by two motives: to attempt to satisfy the social demand for education and to meet the needs of the labour market for educated manpower. However, the rate of expansion has been subject to checks: limits in human and material resources available.(1)

Obviously, one part of the labour market is the educational system itself, of which the need for teachers has drastically increased as a consequence of the expansion. From the point of distribution and deployment of manpower we are then faced with two problems: the optimal balance of manpower between the educational sector and the rest of the economy, as well as the optimal distribution of teachers between the different educational levels.

To start with the first question, it would be necessary for a given period of time, to be able to define the optimal allocation of human resources in order to establish a distribution of manpower which would promote the attainment of the targets posed for the society. Departures from this optimum could be said to constitute a diversion of manpower. If human resources were thus diverted, say from the industrial sector to the educational sector, the consequence could be a productivity decrease in average labour productivity in the industrial sector. However, this need not be true, since a shortage of manpower might be an inducement for a more rapid rationalisation by using more capital intensive production processes. Clearly, there are limits to such rationalisations. The point to be made here is that even if the substitution possibilities (capital for human labour) in the industrial sector had been temporarily exhausted, a diversion of manpower from this sector to the educational sector, need still not have unfavourable effects in the long run. On the assumption that first, the number of pupils and students in the educational system as well as the types of education and training they are undergoing is in accordance with the needs of the labour market, and secondly, that they will enter this labour market. The educational sector would then be able to supply both the other sectors of the labour market with a higher amount of highly qualified manpower than before the "diversion" as well as be capable of providing the educational system with a larger number of teachers. Thus a new "optimum" position could have been reached.

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(1) See DAS/EID/65.96

Although the Swedish educational system has an aim to satisfy the needs of the entire labour market, the proportion of manpower (here: teachers) allocated to the educational system from these short-term and long-term aspects has so far not been possible to specify. One of the reasons can be found in the fact that, although several manpower forecasts have been made for the different types of occupational groups, it has as yet not been possible to make forecasts which integrate the specific needs of personnel for all the different sectors of the economy. However, special commissions have since long presented long-term "plans" and perspectives for the economy. It should be stressed that the character of the reports given by these commissions is purely advisory. Consequently, as regards for example the public sector, the general targets proposed by the commission may or may not be followed by the Government.

The latest "long-term perspective", "The Swedish Economy 1966-1970" deals with education under the heading public services. A brief account of the report's suggestions for this sector will now be given.

Having examined the requirements laid down in the educational plans made by the national authorities, the report sums up by pointing out that during the period 1965 to 1970 the recruitment need for teachers for the actual school system would amount to 14,000 teachers, this being the total sum of the expansion need 7,000, as calculated by the commission, and the shortage in 1964/65 likewise estimated by the commission to have amounted to 7,000 teachers. As for higher education and research, 5,500 would be the needed increase, while 500 would be required for the teacher training system.(1)

The report continues by stressing that the different demands for real resources as posed by each sector of society are incompatible with the actual availability of such resources. Cuts are therefore suggested which for the educational sector entail that it would not expand as rapidly as laid out by the educational plans. The report assumes that the annual rate of expansion would have to be 4 per cent during the period 1965 - 1970 instead of a rate of 5 per cent as indicated by the central authorities (this reduction also includes the rate of increase for investments).

This proposed reduction is mainly motivated by the somewhat difficult situation of personnel. According to the Commission, the existing capacity of the system for teacher training is much too low to produce the sufficient number of teachers needed for the period in question. Nothing is mentioned, however, whether the planned expansion of this system also is too small to meet the needs from the educational system. Since the Commission at the same time has considered a one per cent reduction in the rate of increase of investments, due to scarcity of teaching personnel, the line of thought is slightly difficult to follow, unless it is implicitly understood that this latter reduction is necessary because of present lack of teaching personnel in the teacher training institutions themselves.

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(1) These figures are now obsolete due to both over and underestimates on the part of the Commission. An example, the Commission assumed a further expansion rate of the Universities than was actually decided by Parliament in 1965. However, since we in this chapter are more interested in the general line of thought than precise figures, the Commission's suggestion will be dealt with despite these shortcomings.

The report continues by pointing at the difficulties of the system of higher education in recruiting qualified personnel to higher posts, and then especially for certain subjects of the social sciences, the natural sciences and technical subjects. It states, furthermore, that there are no indications that these difficulties will not prevail also in the future years.

This leads us over to the second question, the balance of teachers between the educational levels. The situation indicated might obviously have an unfavourable effect on the recruitment possibilities of the category of teachers at the secondary school level, who are required to hold a university degree, and to whom a university career might be more attractive than teaching within the actual school system. This danger is stressed by the Commission, which emphasises that a simultaneous expansion of the school system and the system of higher education at the rate indicated by the educational authorities, might for the school system result in a teacher shortage which is not going to disappear before the end of the time period 1965-70. The report goes on by stressing that this short-term situation, in which the university organisation must, in order to cope with the increasing enrolment, absorb a large part of the university graduates as teachers, however, reverses after a certain period, since an expansion of the system of higher education would, according to the Commission in the long run lead to an increase in the total supply of teachers.

Against this background the Commission arrives at the conclusion that the situation necessitates an increase of the pupil/teacher ratios and that more funds be devoted to educational development work aiming at increasing the productivity of the entire educational system.

We have already touched upon the second question posed in the beginning of this chapter, the problem of an "optimal" distribution of teachers between the different educational levels. We will first make the assumption - although rather loosely founded - that during present conditions this optimal allocation would correspond to an equal distribution of the teacher shortage over the different school levels and that no one level is less important for attaining the objectives of the entire school system than the other.

It will be remembered from Chapter I that the discrepancies in teacher supply between the school levels are large, the Upper Department of the comprehensive school showing by far the highest percentage of unqualified teachers. We will now make an attempt to examine whether any efforts are made by the educational authorities to level out these disparities. First of all it should be noted that there is a considerable upward surge of teachers from the Middle Department of the comprehensive school to the Upper Department. This surge consists of two movements. First, a rather large number of Middle Department teachers teach in the Upper Department after having undergone a supplementary training programme to attain the qualifications required at this level. Secondly, as has been mentioned earlier, a considerable number of teachers trained for the Middle Department serve in the Upper Department without this further training. Since 60 per cent of the teachers in the Upper Department should be university graduates, this transfer of Middle Department teachers evidently does not entirely solve the shortage problem. Although the teachers of theoretical subjects in the upper secondary level are required to hold the same qualifications and also are paid the same salary as such teachers in the Upper Department, the difference in percentage of qualified teachers with university degrees is nevertheless large between these two levels. Undoubtedly, one of the factors determining this situation is the prestige and status of teaching at higher levels. The attainment of a better balance would thus involve the solving of problems of a rather complex nature such as the changing of social attitudes. Another factor which might have a certain influence is that many teachers regard the working conditions of the Upper Department as more strenuous than at the upper secondary level and especially in the "gymnasium", where the pupils entering are selected on the basis of quality of achieved results. It could also be mentioned that the teaching load is smaller in the "gymnasium" and "fackskola" than in the upper departments.

Thus attempts to remedy the problem of disparities between levels have so far in Sweden generally resulted in an upward transferring of teachers from the Middle Department. The latter problem - Upper Department, i.e., upper secondary level has as yet not been seriously tackled.

A conclusion to this chapter would show that an explicit policy of optimal allocation of manpower between the educational sector and the rest of the economy, as well as between the different levels within the educational system, is today not being pursued in Sweden. It would require first arriving at a solid basis for determining what is "optimal" and secondly, the creation of instruments for the implementation of such an allocation policy. However, it should be added that attempts have been made towards a more even distribution of teachers between the different school levels. Also, several expansion decisions have been guided by such considerations.

CHAPTER III

TEACHER TRAINING POLICIES

1. The Existing Teacher Training System

This section provides a detailed description of the existing teacher training system

A characteristic feature of the present system of teacher training in Sweden is the division into "class-teachers" (primary, or lower and middle department teachers), on the one hand, and theoretical subject teachers, on the other Under a class-teacher system, all the pupils in a given class are taught by the same teacher in all subjects The system in this pure form is generally to be found today only in the lower department of the comprehensive school

In principle, the class-teacher system is also applied in the middle department, but there is a certain amount of special subject instruction in this department, mainly in practical and artistic subjects

The actual dividing line between the class-teacher and subject-teacher systems comes with the transition to the upper department, where there are three types of teachers who deal, respectively, with theoretical subjects, practical and artistic subjects, and vocational subjects Theoretical subject teachers are further divided into two categories: assistant masters (university graduates with teacher training) and teachers from the middle department who have had supplementary training Finally, there are also theoretical subject teachers who are graduates of technical or commercial "gymnasia" and who have some extra qualifications as teachers as well as practical professional experience

At the upper secondary level, the subject-teacher system is further accentuated Here, the pupil encounters two types of such teachers - assistant masters ("adjunkt") and senior masters ("lektor") In addition to a first degree(1) and teacher training, a senior master is normally required to hold a "licentiate" degree (comparable to an American Ph D) in some of the subjects included in the curriculum. Senior masters may also have a doctor's degree. The foregoing applies to teachers in all branches of the "gymnasium". However, in the case of applied technical subjects in the technical stream of the "gymnasium", the qualifications for appointment to a senior master's post are an engineering degree from a College of Technology (university level) with specified minimum pass marks plus experience in both teaching and in the specific field concerned. Similarly, a degree course in economics constitutes the basic training of teachers in the economic branch of the "gymnasium".

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(1) The Swedish filosofie magister degree corresponds to a normal bachelor's degree with a teaching bias.

Teachers at the "fackskola" (specialised professional schools) are required to have the same qualifications as the assistant masters in the "gymnasium".

In the field of vocational training, the teaching is performed by theoretical subject teachers and by various categories of vocational teachers.

(a) Training of primary teachers

At present, primary teachers (class-teachers) are formed at 18 training colleges for lower and middle department teachers and at four specialised colleges of education.

The first specialised college of education was opened in 1956 in Stockholm. Since 1960 three new colleges have been established: Malmö, Gothenburg and Uppsala.

At the teacher training colleges, students are admitted to a two- or four-year course for future middle department teachers and to a two- or three-year course for future lower department teachers. The admission requirements are the "gymnasium" leaving examination for the two-year courses, and the comprehensive school, or equivalent, for the three- and four-year courses.

At the specialised colleges of education, the duration of the courses for class-teachers at both lower and middle department levels is two and a half years, i.e. five terms, of which one term is devoted to practice teaching. The "gymnasium" leaving examination is required for admission to both the courses offered at these colleges. In addition, for admission to all teacher training establishments, an aptitude test is given to candidates.

The following schedules for the teacher training colleges, laid down in 1963, show the aggregate number of hours per week - i.e., the sum of the hours-per-week for all the individual years added together - spent on each subject throughout the two- and four-year courses for middle department teachers and three-year courses for lower department teachers. These figures give some idea of the contents of the courses for middle departmnet teachers at the teacher training colleges, which roughly coincide with the courses at the specialised college of education.

Table 4: Aggregate Number of hours-per-week for all years added together, in courses for Lower and Middle Department Teachers.

	Middle Department Teachers		Lower Department Teachers	
	4-year course	2-year course	3-year course	2-year course
Religious knowledge	8	3	6½	2
Swedish	14	4	12	4
Library science	½	½	-	-
English	12	3	-	-
History	6½	½	4	1
Civics	3	2	4	2
Geography	5	1	3½	1½
Psychology and Pedagogy	8	8	8	8
Mathematics	8	1½	4	1
Biology, including Hygiene	7	2	5	2
Physics	6	1	1	1
Chemistry	4	1	1	1
Drawing	7½	3½	6	4½
Handwriting	½	½	½	½
Music	7½	4	3⅓	4
Gymnastics	14	8	9	6
Handicrafts	4	4	4½	4½
Gardening	-	-	1	1
Teaching methods (not including methods for teaching specific subjects)	5	5	5	5
Observation of classes and practice teaching	14	14	14	14
Totals	134½	66½	100⅓	64

All the subjects listed above are compulsory, and in order to pass the qualifying examination the candidate must gain a pass mark in all of them. A lower mark in either music or handicrafts or gymnastics may, however, be accepted under certain conditions. The 1963 schedules for middle department teachers provide for an increase in the number of weekly periods devoted to English. A compulsory supplementary course in English comprising a total of 54 hours is provided for trainees who have completed the first year of a two-year course and the third year of a four-year course.

The training of teachers for special instruction for pupils who find school difficult was previously affected through extra-mural courses, but since the Autumn of 1963, lower and middle department teachers have been able to qualify as special-class teachers by taking a year's extension course at a college of education.

(b) Theoretical course work for subject teachers

The most striking feature of the present system of training for subject teachers is the division of the course into sections devoted respectively to the theory of the subject and to practical training in teaching. The theoretical courses are given in a number of different ways, but in most cases in the university faculties of arts and sciences. Today, as already mentioned, increasing numbers of graduate engineers and economists are being recruited to the teaching profession as a result of the expansion of the technical and economic streams. Other graduates and persons qualified as middle department teachers or holding technical "gymnasium" diplomas are also taking up subject teaching.

Theoretical course work in the faculties of arts and sciences

The programme of theoretical courses in the faculties of arts and sciences for prospective teachers involves certain obligatory subject combinations but is otherwise not different from the other types of education dispensed by these faculties.

For the student who wishes to become a teacher, the programme for the master of philosophy ("filosofie magister") degree must include at least one of the following combinations of two subjects.

A post as assistant master usually involves two teaching subjects in each of which the teacher is required to hold two university "grade-units". Such a post may, however, involve teaching-three subjects, in which case only one "grade-unit" is required in one of the subjects.

Table 5: Alternative Subject Combinations for Future Teachers

School subjects	Religious Knowledge	Swedish	Latin	Greek	English	German	French	History	Civics	Geography	Mathematics	Physics	Chemistry	Biology
Religious knowledge		x	x		x	x								
Swedish	x		x		x	x	x	x		x				
Latin	x	x		x			x	x						
Greek			x											
English	x	x				x	x	x		x				
German	x	x			x		x	x		x				
French		x	x		x	x								
History	x	x	x		x	x			x	x				
Civics								x		x	x			
Geography		x			x	x		x	x		x			x
Mathematics									x	x		x	x	x
Physics											x		x	
Chemistry											x	x		x
Biology										x	x		x	

Each combination is composed of a subject listed in the vertical column on the left along with any of the subjects marked by an "x" which appear in the same horizontal line with it. The table above does, however, not take into consideration some minor changes concerning the new "gymnasium" starting in the autumn 1966.

Training of teachers of mathematics, physics, and certain basic technical subjects

A new type of training for teachers of mathematics, physics and certain basic technical subjects was introduced in the autumn term, 1963, at Linköping and Orebo. The degree awarded to these teachers is that of "teknisk magister" (master of technology). The intention is that they will teach mainly in technical streams of the "gymnasium" and the "fackskola" (specialised professional school). Eighty places in all are available for the courses at Linköping and Orebo. The programme is of four years' duration and comprises both theoretical subject training and practical instruction in education, plus a compulsory six-month period of practical experience in industry. In Autumn 1963 the first students were admitted to programmes in physics for engineers and electrical engineering. Curricula in mechanical engineering and building technology were started in 1964.

The courses in mathematics and physics are run jointly with the "decentralised academic courses" in these subjects at Linköping and Orebro. The latter are described more fully in the following section.

In the meantime, courses leading to the"teknisk magister" degree started in the autumn term of 1964 at the Institute of Technology in Stockholm. Thirty places were made available in the first year and another 15 in 1965, followed by the addition of still another 15 places in 1966. These courses are run by the department of physics.

Decentralised academic courses

Academic courses, mostly qualifying for one "grade-unit", held outside the universities and known as decentralised academic courses, are organised for teacher trainees. During the academic year 1962/63 such courses were held in eleven places. In 1965/66 there were 45 such courses.

Courses in mathematics and physics qualifying for two "grade-units" have been established in a few towns since the autumn term of 1963. One such course in chemistry was held in 1965/66.

Supplementary courses for middle department teachers

As mentioned in the introduction, middle department teachers can become qualified as theoretical subject teachers by taking supplementary training. Such training varies in extent To qualify as a subject teacher in the upper department of the comprehensive school it is necessary to take either a two-term extension course or two "grade-units" in subjects taught in the upper department. In both cases, shorter courses in a secondary subject and in psychology and educational theory are also required. If a trainee wishes to qualify as assistant master at the upper department level, he may supplement either of the two programmes mentioned above with two "grade-units" towards the "filosofie magister" degree.

Supplementary training courses for middle department teachers wishing to qualify as subject teachers have become quite prevalent. The number of such teachers who completed supplementary training courses during the period 1954/55-1963/64 was about 1,300. Supplementary courses were given in ten subjects in 1964-65. About 500 elementary-school teachers enrolled in such courses in the Autumn of 1964.

Academic correspondence courses

Middle department teachers can also obtain higher academic qualifications through correspondence courses. This scheme at present covers about ten subjects. The courses as a rule confer one "grade-unit". They are supervised by the University Chancellor, who also appoints the examiners. State grants to defray the operating costs of such courses are accorded, in the first place, for oral instruction and certain preparatory courses in connection with the correspondence courses, and secondly, for the setting up of new courses. The student grants cover tuition and examination fees. This scheme has become quite extensive. Since it was started in 1953, over 1,000 "grade-units" have been awarded as a result of correspondence courses. This mode of instruction has the advantage of enabling teachers to pursue their studies without having to take leaves of absence.

(c) Practical training in education for subject teachers

Practical teacher training is a prerequisite for permanent appointment as a subject teacher. Such training is at present given in the subject-teacher courses at specialised colleges of education, and at what are known as practical teaching courses.

The last-mentioned course is taking place at a number of secondary schools. The programme covers one term for persons with teaching experience while two terms for those without such experience. The curriculum is mainly of a practical character and the courses are given by more experienced subject teachers.

It is intended that the courses for subject teachers at specialised colleges of education should gradually replace the practical teaching course. In principle, the practical training is supposed to follow immediately upon completion of the academic subjects. Throughout the entire period of the training, two terms as a rule, the trainee receives a teacher's salary.

The first term is devoted to both theoretical and practical training. Practice teaching takes place in the second term, during which the trainee is generally required to teach 14 to 16 weekly periods under the guidance of experienced teachers. Grades for teaching skill are awarded at the end of the training course and the candidate who has satisfactorily completed the curriculum receives a certificate of suitability for teaching. Anyone wishing to improve his certificate can, after three terms of full-time teaching, take a so-called "test for practising teachers".

The table below shows the number of places per academic year open to those wishing to train as subject-teachers for the years 1961/62 - 1965/66. The number of places corresponds to number admitted, but it should be noted that some of those admitted do not take up the studies. Up to the autumn term 1964 the number ot places were restricted, but since then all qualified candidates who apply are being admitted.

Table 6: Number of Places Available at Practical Pedagogical Programmes 1961/62 - 1965/66

Type of course	61/62	62/63	63/64	64/65	65/66
Specialised colleges of education					
Stockholm	65	65	155	308	363
Malmö	60	100	100	297	379
Göteborg		90	120	316	383
Uppsala				143	315
Practical Teaching Course	500	580	700	912	982
TOTAL	625	835	1,075	1,976	2,422

(d) Training of teachers of practical and artistic subjects

The practical and artistic subjects taught at school comprise physical education, drawing, music, handicraft and "domestic science". For persons wishing to become specialised teachers in these subjects - with one exception - a number of aptitude tests are given, but the only other entrace requirement is completion of compulsory school education. The one exception - physical education - is discussed below.

The training of physical education teachers takes place at the Central Gymnastics Institutes in Stockholm and Örebro and covers four terms. They are of university standard. Scientific research is carried on in Stockholm, and where the teaching staff includes one professor and one associate professor. Students with qualifications lower than the leaving examination from a "gymnasium" can be accepted, but owing to the extremely keen competition for places in recent years, the intake has been confined mainly to applicants with the "gymnasium" leaving examination. The number of places is at present 225 per year.

Training of art teachers takes place at the State School of Arts, Crafts and Design in Stockholm. It is organised in two stages, first a 1-year preparatory course and then a 3-year course at a special institute for teachers of drawing in the State School of Arts, Crafts and Design. In 1966/67 there are 169 students at the institute and 75 taking the preparatory course.

Music teachers are trained at the Royal College of Music in Stockholm and at the conservatories in Gothenburg and Malmö. The course takes normally four years and includes special teacher training and practice teaching. In 1966 the College of Music accepted nearly 40 students for training as music teachers.

Teachers of woodwork and metalwork are trained at the Handicraft Teacher Training College of Linköping. The course covers two terms, and the students number about 120. Admission requirements are,the completion of compulsory school and previous training in a workshop school.

Teachers of "domestic science" are trained at colleges offering a three-year course, situated in Stockholm, Gothenburg, Uppsala and Umeà. Considerable practical experience, as well as theoretical schooling is required for admission. Training is divided into courses for teachers of home economics, textile work and child care. Admission capacity in 1966/67 amounted to 400 first-year places.

Since the Autumn of 1963, persons who have passed the "gymnasium" leaving examination and the examination for teachers of textile work or home economics have had the opportunity of taking supplementary training at the Scandinavian College of Domestic Science. The course is of 2 years' duration. The first three terms, in the case of the textile course, are spent at at the Chalmers Institute of Technology, while the fourth term is reserved for work preparatory to the examinations and may be done elsewhere. Courses under the auspices of the Scandinavian College of Domestic Science in Oslo and Arhus are also planned. A course in nutritional science was started in Oslo in the Autumn of 1966.

(e) Training of teachers of vocational subjects

The training programme for vocational teachers (teachers of practical vocational subjects and of the relevant theoretical background material) is of 33 weeks' duration. It comprises 15 weeks of education courses, 15 weeks of practice as a probationary teacher, and a 3-week revision at the end of the probationary period. The courses are given at six different places in the country. More than 500 teachers are trained annually. One requirement for admission is at least seven years of comprehensive experience in the vocational field concerned.

For the training of teachers of commercial and technical subjects there are courses lasting about 15 weeks as well as courses comprising two entire semesters. In 1966 there were about 200 enrolments for such courses.

(f) In-service training of Teachers

The in-service training is carried out in three main forms: advisory work by travelling consultants during term-time, courses during term-time covering either one whole day, two whole days or a series of meetings spread over a couple of months, or vacation courses of six to ten days.

The two first forms are administered on a regional basis. A director of in-service training is affiliated to each regional school board. At the moment there are 170 consultants working half-time. They are teachers, and the remaining half-time is meant for their own teaching. Basic training courses for these consultants and further training courses which appear regularly twice a year are arranged on a national basis. Courses during term-time can either be arranged as a compulsory activity or on a voluntary basis. According to school legislation the teaching can be cancelled five days a year in order to make it possible to bring all the teachers into in-service training. The decision is taken by the local school authority. A considerable amount of time is spent on courses also in the late afternoons and evenings. In 1965 approximately 12,000 teachers took part in such evening courses. The consultants mentioned above to a large extent organise or help to organise both the compulsory and voluntary courses during term-time and a considerable part of the actual work is done by these consultants. Five in-service training institutes administer most of the course activity, which is arranged on a national basis. These institutes are located in Stockholm, Gothenburg, Malmö, Uppsala and Umeà. They arrange the basic training and the further training of consultants. They also plan and arrange all the vacation courses and they correct, produce and distribute various forms of documentation for the in-service training. They work directly under the National Board of Education. Their main work lies in the field of vacation courses, which at the moment can be offered to approximately 10,000 teachers each year. That means approximately just under 15 per cent of all Swedish teachers.

In addition to what has been mentioned above one more form of in-service training exists. Additional and complementary subject matter training is given to teachers in the gymnasium in the form of three-week-courses during term-time (the teachers who take part are free from their teaching but receive full pay) or by correspondence courses or by a combination of the two. This scheme is due to the reform which is taking place within the Swedish gymnasium. In 1966 about 4,000 teachers were involved.

According to the plans of the National Board of Education the number of consultants, which in 1966 reached 170, will be considerably increased. The frequency of vacation courses will also be increased. In five years there should be a possibility for each teacher to take part in a vacation course once every four years.

2. Proposals by the Teacher Training Committee

The system of teacher training is directly related to the supply of teachers. First, this system must provide the future teacher with training which conforms to the new tasks defined in the school reforms. Secondly, the system must be capable of producing the number of teachers required. Thirdly, teacher training, as the first step in a professional career, is vital to the functioning of the entire educational system, and therefore its tone and manner and the attitudes developed by it, are of fundamental importance.

Considerations such as these have led to proposals to change the existing teacher training system. In this section, the recommendations made by the Teacher Training Committee appointed in 1960, particularly those dealing with the contents and structure of such training, will be summarised.

According to its initial terms of reference, the committee was to consider the "external" organisation of teacher training which would be required to meet the needs of the compulsory schools. After Parliament decided in 1962 that the comprehensive school should be introduced, these terms of reference were extended to include the "internal" organisation and contents of training with a view to making it compatible with the goals of the new school. It was also stipulated in the new terms of reference that liaison should be established with the "Gymnasium" Committee to consider the future training of teachers needed to satisfy the needs of the "gymnasium".

The Teacher Training Committee submitted its final recommendations concerning the scale and organisation of training in early Summer 1965.

The Committee sought to lay the foundations for a system which would not only prepare the trainees for teaching but would also channel them more directly into the teaching profession. To achieve this goal, an integration between theoretical and practical training, in such a way as to link the training closely with the teaching profession, was recommended.

In delineating the structure of the proposed new system, the committee aimed at establishing a fixed course of study comparable to those of the specialised colleges for medical doctors, dentists, civil engineers, etc. Under the existing teacher training system, the teachers of specific subjects receive their theoretical education primarily in the faculties of arts and sciences where the student advances through the curriculum at his own pace. The result is that only a small proportion of the students graduate within the "normal" time. It is obvious, against this background, that a fixed course of studies would be of great advantage.

For the organisation of teacher training, three goals were set. First, that close contact be established between scientific developments and training; secondly, that the distinction between "class-teachers" (primary level teachers, lower and middle department) and of specific theoretical subjects teachers (secondary-level teachers) should be reduced; and, thirdly, that the theoretical instruction and practical training for subject teachers should be co-ordinated.

For the subject teachers, the committee recommended that the main academic subjects should as a rule be studied at the universities, while the specialised colleges of education should be responsible for pedagogical subjects and instruction in teaching methods as well as for practical training. The training of "class-teachers", it was proposed, should take place mainly in the specialised colleges of education. The training would be organised into different branches for teachers in the lower department, teachers in the middle department, and subject teachers. It was also stated that the question of the length of the training could not be separated from that of its internal structure, i.e., the co-ordination and integration of the different components of the training programme.

The committee also assessed the need for new teachers during the 1970's and suggested that the yearly output of teachers should be the following: 1,100 for the lower department; 1,500 for the middle department (of whom 320 are expected to undergo up-grading training for teaching in the upper department); and 2,000 subject teachers. The majority of the latter group would teach at the upper secondary level.

The figures cited here refer to the number of graduates from teacher training institutions required to cover the needs of the schools and not to the number of new teachers needed by the school system. This difference is due to the fact that not everybody enters the teaching profession after having acquired a teaching diploma and that some new teachers serve part-time. In addition, the number of teachers on leave of absence obviously affects the requirements.

In order to assess the proportion of graduates who will not enter the teaching profession, the need for other types of professional personnel with comparable educational background would among other factors, have to be examined at the same time as the need for teachers. The committee neither made such assessments itself, not did it base its calculations on other such forecasts. The propensity to enter the teaching profession was, rather, derived from earlier trends.

Finally, since the qualitative objectives of teacher training should reflect the objectives of the new comprehensive and upper secondary schools, they must be examined in close relationship with these.

The qualitative objectives of the proposed system, as they emerge from the Committee report, may be briefly summarised as follows:

1. The training should foster, on the part of the future teacher, an interest in the individual pupil and his development.
2. It should explain the ideological background of the school reform, the objectives of school work, and the principles of the teaching process.
3. It should, consequently, put stress on personality and the psychology of individual development in order to create an understanding of the pupils' varying capacities for school work.

4. It should be a part of the continuous educational reform and should form teachers who are willing to re-evaluate the educational process and their role in it and to contribute to structural and curricular changes in the school.

(a) Training of teachers for the lower department of the comprehensive school

The Committee recommended two years' training for which the admission requirement would be a successful completion of the "gymnasium" course. When analysing the requirements for teaching in the lower department, the committee found some deepening of theoretical subject knowledge to be necessary.

Considerable time has been devoted to the theoretical study of pedagogical subjects. The committee stressed that it was important that these studies be co-ordinated with practical training.

Practical training aims at giving the teachers a good knowledge of the child's development from the pre-school age up to the age of eleven. For this purpose, it was proposed that trainees make continuous observations of children in one first-grade class as well as in second- and third-grade classes. The observations should concern both the maturing process and development as well as the application of teaching methods and their effects. These studies would be closely related to theoretical training in psychology, pedagogy and teaching methods and would be combined with studies by closed-circuit television, films and tape recordings. The practical training would consist of six weeks plus two half semesters of practical teaching experience at all levels of the lower department. Upon graduation from the training course, the teacher would be qualified to teach Swedish, mathematics, religious knowledge, civics, art, music and physical education in the lower department.

(b) Training of teachers for the middle department

For middle department teachers, the committee recommended 2 ½ years' training. Upon graduation, the teacher would be qualified to teach the following ten subjects: Swedish, English, mathematics, religious knowledge, civics, history, geography, nature study, art, and either music or gymnastics, depending on the choice he has made between these two.

Compared to the subject teacher at the higher levels, the situation of the middle department teacher is in some respects complicated, since he must master a wide range of subjects. It is practically impossible for any training system to produce a teacher who could be a specialist in all these subjects. The committee therefore recommended that the trainee should do concentrated work in depth during four months in one of the following subjects: civics, history, geography or biology. This concentration on a special subject should promote independent working methods, and since one of the aims of the educational reform is to stimulate independent activity and self-sufficiency on the part of the pupil, it is necessary that the teacher be personally acquainted with methods designed to foster such qualities.

The Committee suggested that practical training comprise, in total, some 700 hours (=23 weeks). This training would consist of six weeks of pupil and method observation and teaching experience in a school class under the guidance of a supervisor, and of two half semesters of guided teaching in a class.

The demands made on middle department teachers might seem to indicate that the training ought to be longer than five semesters. Nevertheless, this time schedule has seemed feasible provided there is:

1. A certain restriction of the number of subjects (the possibility to choose between music and gymnastics),
2. A certain specialisation,
3. An efficient use of time and
4. A certain rationalisation of the practical aspect of teacher training.

(c) Training of teachers of theoretical subjects for the upper departments

The problem of the supply of teachers is largely focused today on the upper department of the comprehensive school, where the shortage is most striking. The high frequency of interrupted or prolonged studies in the "free" university faculties makes it difficult to obtain a clear picture of the future situation as regards theoretical subject teachers. Therefore, one requirement under the proposed new training system is that students adhere to the prescribed schedule for completing the various parts of their study programme and that administrative provision be made for the taking of rapid and efficient measures in cases where the prescribed time limits are exceeded. The Committee recommended a fixed standard course of four years' duration. Each of the first three years would be chiefly devoted to one main school subject, while the fourth year would consist of practical pedagogical training.

Under the existing system, theoretical subject teachers can serve in the upper department of the comprehensive school or at the upper secondary level. The Committee recommended that the theretical part of the training for teachers at these two levels be divided into twelve fixed combinations plus some combinations for future upper secondary teachers only, each combination consisting of two subjects. The first two years would be devoted to the basic subject combination and, for the upper department teacher, would be followed by a third subject to be studied for one year. The prospective upper secondary-level teacher would not add a third subject, but would, after the two common years, go on to two years of additional study in depth of the combination already chosen.

The first year would start with a two-week introductory pedagogy course aimed primarily at elucidating the goals of the teacher- training programme and the role of the school and the teacher in modern society. During the first three years, continuous contact would be maintained between the teacher training programme and the school system, partly through a number of observation periods in schools combined with seminars in pedagogical problems. The seventh semester would take place at a specialised college of education and would be devoted to pedagogy, teaching methods and practical training, the latter consisting of eight weeks' teaching under the guidance of a supervisor. In the last semester, the trainee would teach in a school with the help of a supervisor. This system of practical training demands well-trained supervisors, whose qualifications and educational attitudes are consistent with the aims of the training institutions. The committee therefore recommended a specific training course for supervisors attached to the teacher training institutions.

Upon graduation, the trainee would be qualified to teach three subjects in the upper department of the comprehensive school.

(d) Training of theoretical subject teachers for the upper secondary level

The teachers at the upper secondary level must, according to the Committee, be more specialised than those in the upper department of the comprehensive school. The Committee therefore recommended that the trainees should be qualified to teach two main school subjects and considered that a five-year training course would be necessary. The first four years would concentrate on the study of school subjects, and the fifth on pedagogy, teaching methods and practical training. The structure of the training programme would be determined according to the same principles as those governing the course for upper department teachers.

The pattern of two years common for all trainees cannot be applied to subjects that exist only at the upper secondary level. In this case, the studies would, from the beginning, be directed towards teaching at that level.

According to the Committee's recommendations, the training of teachers in technical and economic subjects would differ somewhat from training for other subjects. It would comprise one semester of practical studies in economic or technical institutions or industrial enterprises.

(e) Refresher courses and up-grading training

The proposed system for teacher training is designed to provide the basic foundation for the education a teacher needs to practice his profession. With rapid changes taking place in the educational field, such training can be no more than a general introduction, which later should be continuously deepened and kept up to date by the teacher himself. The Committee suggested that the existing forms of refresher courses should be further developed, but stressed that this training should be organised as an integral part of the activities of the specialised colleges of education.

There may also be another motive for a teacher's desire to take supplementary training: he may wish to teach at a level higher than the one he was originally trained for. The need for organised up-grading training can thus be seen from two viewpoints, that of the educational system and that of the individual.

The Committee recommended a one-year up-grading course for lower department teachers and a 1½ year programme for middle department teachers. The course for the latter group would be given to some 300 teachers per year. It was recommended that these two types of training should as a rule be preceded by three years of teaching experience. For upper department teachers who desire to teach at the upper secondary level, it was proposed that they be trained within the ordinary upper secondary teachers training system.

3. The Government Bill on Reformed Teacher Training

The Bill presented in January 1967 contains proposals concerning a reform of primary teacher and special subject teacher training. The Parliament decision followed almost entirely the proposals put forward in the bill.

The new training which is intended to be introduced as from the beginning of the academic year 1968/69, will replace the present training of primary teachers at training colleges and specialised colleges of education as well as of special subject teachers at universities and specialised colleges of education and practical teaching courses.

It is calculated that the annual intake capacity, which is at present about 2,800 primary teachers and 2,000 special subject teacher students, should be increased during the end of the 1960's to about 3,200 (of whom 1,400 lower department and 1,800 middle department school teachers) and 2,300 students respectively.

Teacher training should comply with the aims, curricula and organisational forms of the new schools. A main aim in the training is to instill in teachers the will and ability for re-evaluation and constant improvement of education and to enable them to follow the work of educational research and development.

The prospective teacher should receive both theoretical (subject) training and practical training comprising pedagogics, methods and practice. It is proposed that, as hitherto, the training should be specialised to different teacher categories. But even when the training is designed for a particular level, the teachers should be able to some extent to teach above that level.

It is proposed that the total training time for primary teachers in the lower department should be 2½ years and in the middle department 3 years. Within this period a more thorough training should be given which provides the competence to some extent to teach in the next higher level, and training in English for all lower department teachers. In the middle department facilities for advanced studies are proposed in more subjects than proposed by the Teacher Training Committee. The general qualifications required for training of lower and middle department teachers are that the applicant complete "gymnasium", "fackskola" or corresponding education.

The theoretical training of special subject teachers for the upper department of the comprehensive school and the upper secondary level shall take place within the university system and, in respect of level and extent, shall comply with the present practice for qualification as assistant master in these levels. This means that the assistant master teaching staff will not be split into two groups as proposed by the Teacher Training Committee - one for the upper department and one for the "gymnasium" "fackskola". For an assistant master's post in general subjects the training will be standardised insofar as the qualification requirement is a primary degree with emphasis on teaching from faculties of arts and sciences. The theoretical training of teachers in technical subjects should be provided for by courses for "teknisk magister" and graduate engineers, and of teachers in economic subjects by studies at a university or school of economics. The details of the theoretical training are not prescribed in the Bill but are to be considered by the Office of the Chancellor of the Universities in conjunction with its investigation into fixed curricula at faculties of arts and sciences. The teacher training subjects form part of the other fixed curricula, and the theoretical stages should in many cases be suited both for those who intend and for those who do not intend to become teachers.In accordance, it is proposed notto establish special teacher training courses at the universities.

The practical training of special subject teachers will consist of a preparatory course in connection with the theoretical training and a final course covering the last year of study. It is proposed that this training, as that of primary teachers, should take place at independent specialised colleges of education.

The specialised colleges of education will have a central role within the fields of educational research and development and of in-service training.

Pending a more comprehensive survey of the training of teachers in practical and artistic subjects, provisional measures are suggested which imply that teacher appointments in the upper department of the comprehensive school, "gymnasium", "fackskola" and vocational schools may cover a combination of theoretical and practical/artistic subjects and certain other subjects. The specialised colleges of education and the vocational teacher training colleges are to be merged.

A more permanent form of organisation of the head of the subject department system is suggested. In the comprehensive school and all upper secondary schools such teacher appointments are to be established carrying an increment of more salary.

Admission to teacher training will be based principally on previous educational grades, while aptitude tests will be employed for the present only to avoid acceptance of applicants who are clearly unsuited for training as primary teachers.

It is proposed that every specialised college of education shall have access to one or more schools within the general educational system for experimental and demonstrational purposes. For tuition of student teachers undergoing practical training there will be special tutors, who will be stationed as far as possible at centres for practical training.

Apart from the specialised colleges of education for primary teachers and special subject teachers that are already organised, it is proposed that two new such colleges shall be established. The majority of the present Primary Teacher Training Colleges will be replaced on 1st July 1968, by specialised colleges of education solely for training primary teachers. At certain Primary Teacher Training Colleges the training of primary teachers which is based directly on the Comprehensive School will continue during a transitional period. It is proposed that a committee should be appointed to investigate the question of training of teachers for, among others, the Finnish-speaking population in Sweden.

4. Student Aid to Teacher Trainees

Students at universities, colleges, all forms of teacher training and other post-gymnasial institutions of learning receive state study assistance in the framework of a special system, the study grants system. The regulations for this financial aid are, since 1964, uniform for all the different student groups, which means that all receive the aid on the same conditions irrespective of type of studies.

As regards the primary teacher trainees the new system is a considerable amelioration. According to the previous system the maximum amount of scholarships granted to these teacher trainees was 960 Sw. crowns per school year. This scholarship was as a rule only given on two conditions, namely, that the annual income of the parents did not exceed 18,000 Sw. crowns and that the trainee had to make his or her own living. As a comparison the conditions for granting scholarships under the the old system to students at the university level should be mentioned. The average value of these scholarships was in 1962/63 approximately 2,800 Sw. crowns and were provided during a maximum period of three years, which as a rule corresponded to about half the study time. Before granting a scholarship, consideration was taken to the student's own ability to study and his own economic situation as well as that of his parents. Generally, no scholarship was granted to a student whose parents had an annual income exceeding 35,000 Sw. crowns.

The new system is noteworthy in two particular respects. On the one hand, the financial assistance is to be paid without regard to the parents' income and, on the other, a part of the assistance paid is to be repaid by a method which involves the liability to repay being to some extent adjusted to the individual ability to repay.

What a student receives in cash as financial assistance for his studies is designated as "study funds". The student will be liable to repay that part of the study funds which does not constitute a study allowance.

A special law on the financing of higher education shows how much is to be paid in financial assistance to students in different cases. In this connection the amount of the study funds is stated not in a certain number of Sw. crowns but in relation to the basic amount now in use in the Swedish social-insurance system. This basic amount is linked to a general consumers' price index.

By linking the study funds to an amount regulated by the index, permanence of value is obtained. Standard-of-living adjustments, i.e. automatic participation by the student in the general raising of the social standard of living, can, on the other hand, be brought about by a decision of Parliament later.

The normal amount of the study funds is 7,700 Sw. crowns a year, which is estimated to cover the normal expenses of study. This and all other amounts (except the study allowance) mentioned in the following are given in the money values ruling in the summer of 1966.

The study allowance amounts at present to 1,750 Sw. crowns, which, in other words, is a grant not to be repaid.

A student may receive study funds over and above the normal amount, if there are special reasons. Students who are responsible for the maintenance of children below the age of 16 are entitled to a child allowance of almost 1,400 crowns for each child and year.

Study funds are paid during the whole period of study. A student who cannot keep the normal period of study in the line he has chosen loses the entitlement to study funds. Also, study funds are reduced by two-thirds of that part of the student's income which exceeds 4,400 crowns per year. The husband's or wife's income reduces the entitlement to study funds by one-third of that part of the income which exceeds 15,400 crowns.

When the study funds are reduced, the study allowance and the repayable amount are reduced proportionally. On the other hand, the amount of the repayment-free study allowance is not affected by the fact that the student takes out less in study funds than he is entitled to.

What a person has taken out in study funds over and above the study allowance is calculated in multiples of basic amounts. He or she will later repay an equal number of basic amounts by annual instalments. The first instalment is normally paid in the third year after the degree has been taken. The annual instalment is determined by dividing the number of basic amounts by the number of years between the year in which the person liable to repay becomes 50 years of age and the year when the payment of instalments commences. No interest will be paid beyond this amount. The permanence of value principle only applies, however, so long as it is to the advantage of the person liable to repay. If permanent-value repayments should add up to a sum greater than a conventional loan at money-market interest, the latter amount will be the maximum payable. Whoever wishes to do so can repay more rapidly and receives in this case a certain financial compensation.

General rules have been drawn up to prevent the liability to repay from becoming too burdensome for the individual. The person who does not reach a certain minimum annual income is automatically granted a postponement of the repayment obligation.

If the instalment for one or more years has been reduced or waived entirely, this means that the person concerned must continue the payment of instalments after the age of 50. The liability to repay ceases at death, i.e. the State will no longer have any claim on the deceased person's estate. Nor is there any liability to repay after the age of 65.

Finally, it should be noted that study funds are granted to teacher trainees up to their special practical - pedagogical training period during which they are paid a teacher's salary.

The revision in 1964 led to a total equalisation between all students irrespective of type of training. This revision was taken on purely social grounds and was never thought of as an instrument for increasing the number of persons entering teacher training. It is strongly held in Sweden, that the financial aid system should be neutral to educational policies, and that it should not be an instrument for steering students into different professional training systems. Nevertheless, the 1964 change might very well have had some effects on the choice of training, although this was no objective for the reform.

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5. Capacity of the Teacher Training System

Secondary level teachers with university degrees

In the teacher forecasts the demand has for a long time turned out to be underestimated. One result has been that the teacher training institutions offering the practical education courses for future secondary level teachers of theoretical subjects (subject teachers) have been underdimensioned. Although these institutions cannot be blamed for being the main bottleneck in supplying the educational system with a sufficient number of subject teachers to fill the need, they have nevertheless not been able previously to absorb all university graduates with a teacher degree seeking admission. An investigation showed that in 1961 there were some 2,200 persons with university teacher degrees teaching, but who lacked the practical course. Of these, 1,800 declared that they were still waiting for gaining entrance.

As mentioned earlier the practical education course is given at the specialised colleges of education as well as other special teacher training centres.

The following table indicates the numbers of applicants and admitted to the subject teacher course at the specialised colleges of education during the period 1956 - 1963.

Table 7: Admitted and refused applicants to colleges of education, 1957 - 1963

Year	Number of admitted	Number of applicants	Number refused
1956	29	29	—
1957	76	233	157
1958	68	250	189
1959	63	217	154
1960	87	278	191
1961	123	327	204
1962	139	365	226
Spring 1963	75	200	125

Since the capacity during the period has been fully utilised, the number of admitted equals the number of places available. It should also be noted that some have applied to more than one college, thus the number of refusals actually might be lower than indicated, due to double counting.

The next table illustrates the relationship between the number of applicants and places available at the special teacher training centres during the period 1953 - 1962.

Table 8: Number of Applicants and Places Available at Special Teacher Training Centres, 1953 - 1962

Year	Number of places	Number of applicants	Number refused
1953	210	353	143
1954	227	330	103
1955	262	348	80
1956	291	413	122
1957	359	430	71
1958	417	520	103
1959	422	543	121
1960	446	506	60
1961	464	519	55
1962	535	583	48

Recently, however, the "queue" has been abolished by a drastic increase in the capacity of the practical education programme. Since the year 1964/65, all university graduates applying are therefore being admitted.

The following table illustrates the annual increase in the capacity over the last years.

Table 9: Yearly Increase of Places Available

	61/62-62/63	62/63-63/64	63/64-64/65	64/65-65/66
Practical education course	210	240	975	372

It should be noted that during the last years, all places available have not been used, since all applicants have not accepted their placing (went to other teacher training institutions and areas than those applied to). Thus, 400 available places were not used in 1965/66.

Primary teachers

The term primary teachers covers: teachers in the Lower Department and in the Middle Department.

The capacity of the institutions training Lower Department teachers has during the last decade been rather high and the number of graduates has roughly met with the need of the educational system for such teachers. In 1961, however, about 50 per cent of these institutions were changed from a 2-year training system into a 3-year training system, and consequently, the number of graduates was decreased by about 500 for the following year. The following table illustrates the annual intake and number of graduates 1959/60 - 1965/66.

Table 10: Annual Intake of Teacher Training Institutions: Lower Department Teachers and Number of Graduates, 1959/60 - 1965/66

Year	Intake	Graduates
1959/60	984	-
1960/61	1,080	1,065
1961/62	1,152	1,069
1962/63	1,272	541
1963/64	888	1,222
1964/65	826	1,048
1965/66	1,032	
1966/67	1,440	
1967/68 (proposed)	1,296	

The explanation for the high intake up to 1963 is mainly that the lower department was extended from 2 to 3 grades. The future intake according to the Bill on reformed teacher training would amount to 1,400.

The competition for the places available has since a long time been rather fierce, the number of applicants largely exceeding the number of places available. Despite this fact the Swedish system has in recent years showed a certain shortage of Lower Department teachers. The reason for this is not lack of qualifications from the part of the refused candidates but rather a planning problem. The main reason is the rapid decrease in class sizes, which developed faster than predicted.

The system for training of Middle Department teachers has during the last years expanded rapidly. However, the supply of graduates has, as noted earlier, not been able to cover the need of the Middle Department due to the large number of such teachers serving in the Upper Department. The following table illustrates the annual intake and graduates to Middle Department training institutions during the period 1959-1963.

Table 11: Annual Intake to and Number of Graduates from Middle Department Teacher Training Institutions, 1959/60 - 1963/64

Year	Intake	Graduates
1959/60	672	658
1960/61	576	645
1961/62	720	792
1962/63	792	709
1963/64	888	867
1964/65	960	
1965/66	1,200	
1966/67	1,344	
1967/68 (proposed)	1,416	

As in the case of the Lower Department teachers, the shortage of Middle Department teachers is not due to a shortage of applicants to this type of training. It could be mentioned that in 1962 around 1,800 persons applied to a total of some 590 available places. The expansion of the capacity - in 1966/67, 1,350 candidates were admitted - is, according to the Bill on reformed teacher training, planned to continue up to around a yearly intake of 1,800 trainees corresponding to an annual examination of some 1,750 teachers. Table 12 gives an indication of the relationship between number of applicants and admitted to lower and middle department teacher training in the Autumn of 1965.

Table 12: Number of Applicants and Admitted to Lower and Middle Department Teacher Training, Autumn 1965

	Applicants	Admitted
2-year courses(1)	3,750	1,560
3-and 4-year courses(1)	3,750	312

Note: There could be double-counting between the two figure for applicants.

(1) Only 2-year courses require a "gymnasium" certificate (see above).

CHAPTER IV

RECRUITMENT POLICIES

In this chapter the main measures taken to increase the supply of teachers, apart from training and further training, will be discussed.

1. Legal Framework

The legal basis for the Swedish school system is the School law, which, like all laws, is passed jointly by Parliament and Government. Within the framework of this law the Government is entitled to promulgate unilaterally rules and instructions concerning the application (the so-called "orders of the King in Council"). This constitutional set-up, by no means characteristic only for Sweden, opens the opportunity for the Government to pursue a flexible policy.

The conditions for recruitment of teachers are all found in the School Regulations and in different additional instructions. According to these rules, a teacher can have different types of professional status. He can be permanent, extra permanent or an extra teacher. Permanent posts are held by teachers who meet the theoretical as well as the practical pedagogical requirements and in addition have two years of teaching experience. Extra permanent posts are granted to those who lack the latter prerequisite. Also the requirements for appointment, as an extra teacher include the theoretical qualifications but, when no such candidates apply, exemption can be made from this requirement.

Since not one school lesson so far has been cancelled, despite the great shortage of qualified teachers, it follows that this last-mentioned category of extra teachers has been large.

Apart from the rules described there are others that safeguard a certain amount of flexibility and make necessary recruitment adjustments possible. Since the capacity of the institutes offering courses in practical education has, up till 1964, been insufficient, a great proportion of the teaching staff has consequently lacked this training. Due to the importance of absorbing these graduates and since a post as an extra permanent teacher is economically more favourable than the merely extra posts, exemptions were to a large extent being granted from the practical training requirements for extra permanent posts. According to an investigation made in 1961, more than 2,000 extra permanent teachers lacked this kind of training. Exemptions have been frequent concerning the two year minimum service required for a permanent post.

In spite of the means for modifying the requirements within the existing system of rules, the personnel supply has been far from sufficient.

One of the measures taken to fill the gap has been to ameliorate the economic conditions for teachers employed on an hourly basis. The possibility of employing staff by the hour obviously increases the opportunity of employing part-time teachers, which is naturally of paramount importance in the Swedish situation. The persons entitled to appointments as permanent, extra permanent or extra teacher are, according to the regulations, free to choose an employment on an hourly basis. Before the year 1964 the hour-salary system was made up in such a way that a teacher had to serve 27 hours a week in the Upper Department and 24 at the upper secondary level, in order to attain the same salary level per hour as had he been appointed, for instance, an extra permanent teacher. In 1964 the teaching load requirements were reduced. As a consequence since then, it is more economically advantageous for many teacher categories, except permanent teachers, to choose appointments on an hourly basis.

2. Women Teachers on Part-time Basis

The possibilities of part-time teaching are obviously of particular importance for attracting women into the profession. Of the 7,000 teachers employed on an hourly basis in 1963, 3,000 or more than 40 per cent, were women.

The following table illustrates the total actual distribution of staff by professional status category in the upper department and at the upper secondary level (general and technical) in 1963.

Table 13: Teachers in Upper Department of Comprehensive School and at Upper Secondary Level, by Professional Status Category, Autumn 1963

Professional status	Total number, male and female	Females	
		Absolute numbers	Per-cent-age
Permanent teachers	12,000	4,400	36.7
Extra permanent teachers	8,000	2,700	33.7
Extra teachers	5,000	1,850	37.0
Teachers paid by the hour	7,000	3,000	42.8
Teachers over the retirement age	200	50	25.0
Total	32,200	12,000	37.2

As can be seen from the table, only 37 per cent of the total teaching force for the levels examined is composed of female teachers. The question could then be raised whether or not the participation in the teaching profession of women already having the necessary training could be increased. According to the 1960 census, 2,300 women under the age of 69 with university degree from the faculties of arts and sciences were economically inactive. The corresponding figure for those under 64 was 2,200 - or 28 per cent of all women holding such degrees; they consisted of 1,600 persons in age group 25 - 44 and 600 from 45 to 64. At the same time, of all women under 69 holding elementary teacher certificates 3,000 were economically inactive. If those over 65 are subtracted from this total, the remainder totals 2,000 women, (1,200 in age group 25 - 44 and 800 in group 45 - 64), representing almost 16 per cent of all women with such certificates.

The university graduates mentioned above include women both with and without teaching degrees. Moreover, the reserve of elementary teachers would not be of very great value for the educational levels which suffer most from the shortage unless the persons involved could be given supplementary training. The facts here are obviously incomplete (as they do not include the precise type of university training, marital status, number and age of children, etc.). But further investigation might indicate some fruitful opportunities for utilising trained but economically inactive women as teachers, since the educational sector is at present better able to offer acceptable working conditions to women with children than the other sectors, where part-time work has yet not been introduced to the same extent.

3. Teachers over Retirement Age

Attempts have also been made to utilise another economically inactive labour reserve, namely, teachers over retirement age. In addition to the pension allowances, usually about 65 per cent of the previous average salary, such a teacher normally receives a salary one-third lower than that received just before retirement. But when the subject taught is mathematics, chemistry, physics, or a technical subject, the remuneration paid is 90 per cent of the former salary. Retired military staff employed as teachers receive salaries identical to those of non-retired teachers: in other words, 10 per cent more than the active "retired" teacher group.

Some figures might illustrate the outcome of these attempts to sue persons over retirement age. The census of 1960 showed that of the age-group 65 and over holding university degrees from the faculties of arts and sciences, some 1,500 persons were economically inactive. Within the same age group the equivalent number of inactive persons were about 4,000 for those holding an elementary teacher's certificate. As regards those economically active of the same age, the total figure was 890. Unfortunately, no information is available for 1960 on the proportion of those active in service within the educational system, but the data for the year 1962 might give some indication. In 1962 there were 430 persons beyond the retirement age who were teaching. (Obviously, taking the age of 65 as the general retirement age allows for some mistakes, since some retire at the age of 63 while others at 67 - however, no data exists on the actual time for retirement, and since the age for this generally is 65, this will here be used as the retirement age). Of the 430 persons teaching, 240 were employed in the Middle Department of the comprehensive school, while the remaining 190, taught in the Upper Department and equivalent types of schools (40 per cent) and in "gymnasia" (60 per cent). Compared with the total teaching force for the levels in question, the number of teachers active although beyond retirement age amounted in 1962 to 1.6 per cent of the total teaching force (that being 28,400).

Regarding the inactive "reserve" for 1960, this number ought firstly to be deducted for practical reasons with those over 70 years of age. The remainder then would be 860 persons with university degrees and 1,670 with elementary teacher's certificate. It is impossible to say how many of the 860 actually held a formal teacher degree, but even if this proportion was only 50 per cent, the educational background of the remaining 50 per cent might in many cases make the persons fit for teaching service in a situation of great shortage of university trained teachers. Clearly, since the census was made six years ago, the persons referred to would by now have shifted age group.

4. Special Posts for Teachers of Science and Technical Subjects

To stimulate the supply of teachers for the subjects mathematics, physics and chemistry as well as technical subjects, all of which suffer badly from teacher shortage, the Government in 1960 and 1961 undertook special measures providing higher initial salaries for persons who are employed by the hour in teaching these subjects but whose main occupation is something other than teaching. The rules apply to persons with civil engineering or other degrees or qualifications, including advanced military training, which provide a good knowledge of scientific or technical subjects. The salaries paid to such university graduates are now equivalent to those of a teacher with the same level of theoretical training who has been in service for two years (this period being for the regular teacher a prerequisite for attaining the salary involved). Salary advantages of the same sort have been accorded to persons holding technical "gymnasium" diplomas.

The results of the measures taken to attract personnel from other occupations on a part-time basis are difficult to determine from the statistics available. However, some idea will be had from the fact that in 1963, 3 per cent of all teachers employed as supplementary staff or paid by the hour were graduates of faculties other than arts, sciences or theology or held a "gymnasium" engineering diploma.

5. Remedies for Regional Discrepancies

As was shown earlier, the disparities between different geographical regions with respect to adequacy of teacher supply are sometimes rather large. In order to level out these inequalities, certain posts have been established to attract teachers to the less well-supplied areas. These so-called "shortage posts" are the result of three types of special dispensation which have been rendered possible. First, exemption can be made from the required practical education course in placing a teacher in the same salary position as one who has taken this course. Secondly, a teacher can be appointed to a permanent post even though he lacks the - otherwise - necessary two years' teaching experience. Finally, a person qualified for a post as an assistant master can be appointed senior master ("lektor") even if he satisfied only the theoretical qualifications for the latter position. It should be added that in the school year 1965/66 there were 850 "shortage-posts" for assistant masters and 150 for senior masters. It has been proposed by the National Board of Education that the number of these posts be increased to 1,000 and 200 respectively, for the year 1966/67. Also, it has been suggested that the prevailing quota system as between different types of schools should be abolished. Formerly, these posts were rather evenly distributed between the comprehensive school (and its equivalents) and the upper secondary level. To this should be added the fact that many communities pursue a highly active recruitment policy, the main instrument of which is the offer of good housing facilities. This is the paramount weapon of the less urbanised areas against the big cities, especially the capital, where lodging is a severe problem. In the Government Bill on reformed teacher training, it has been proposed that the present rigid distribution between assistant master posts and senior master posts (50 per cent) should be made flexible and adaptable to prevalent supply situation of these teacher categories. This measure would naturally have a special bearing on regions with acute recruitment difficulties as regards especially senior masters.

6. Vacant Permanent Posts

To give an idea of the results of the recruitment policies and then especially the effects of the application of the regulations on the conditions for acquiring a permanent post, it will be useful to indicate the proportion of vacant permanent posts.(1) As shown in the table below, a rather large proportion of the permanent posts in theoretical subjects were vacant during the period covered, 1961 to 1963, the last year for which such data exist. The question could then be raised whether or not access to suchposts could be eased in order to increase the attractiveness of the profession and thereby the supply of teachers.

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(1) A "vacant permanent post" is a post not filled by a teacher with a permanent appointment and thus does not necessarily indicate a shortage. The post may be temporarily filled by a person without a permanent appointment but who may well, nevertheless, be "competent" for the job.

Table 14: Number of Teachers and Number of Filled and Vacant Permanent Posts in Upper Department of Comprehensive School and all non-compulsory Secondary Schools(1)

	1961	1962	1963
Theoretical subjects			
Total number of teachers(2)	19,000	22,000	25,000
Permanent posts	11,400	12,800	14,650
Of which:			
Filled posts	7,200	8,100	10,250
Vacant posts	4,200(37%)	4,700(37%)	4,400(30%)
Practical, artistic, vocational subjects, etc.(2)			
Total number of teachers(2)	8,000	8,600	9,000
Permanent posts	2,600	2,500	2,900
Of which:			
Filled posts	2,500	2,400	2,810
Vacant posts	100(4%)	100(4%)	90(3%)

(1) Includes "people's high schools" and teacher training institutions.

(2) Actual number of persons teaching, i.e. not expressed in full-time posts. Thus, part-time teachers are included.

As can be seen from the table, the proportion of vacancies in theoretical subjects remained the same from 1961 - to 1962 - 37 per cent - but dropped in 1963 to 30 per cent. The vacancy percentages for other subjects are considerably lower; in 1961 and 1962, 4 per cent of the posts were vacant and in 1963, 3 per cent. It should, however, be noted that the number of permanent posts is lower in these subjects.

With respect to the figures for theoretical subjects, it should be added that, although the proportion of vacancies remained the same between 1961 and 1962, the number of posts increased by 1,400, of which 900 were filled. From 1962 to 1963 the increase in the number of posts was 1,850, while the increase in the number of filled posts was 2,150, which meant a decrease of 300 in the number of vacant posts.

7. Recruitment Campaigns

In order to encourage young people to take up the teaching career, funds have been granted the National Board of Education since June 1964 for teacher recruitment campaigns. Up-to-date methods are applied in this campaign, and a special agency has been employed for the purpose. One important part of the campaign is propaganda meetings at universities. Another feature is a series of advertisements intended to enlighten students and the public on the teaching profession, and increase their interest in and appreciation of this profession. Pamphlets and film strips for students of upper secondary schools (gymnasia) are also being produced.

ANNEX

Professional Qualifications Required for Appointment as a Qualified Teacher

1. Lower and Middle Department of the Comprehensive School

For entitlement to a permanent post as a teacher in the lower or middle department, candidates must hold a lower or middle department teacher certificate respectively. This certificate must, as a minimum, have been issued two years before the day the service as a permanent teacher is to commence. Full-time teaching service of 256 days' minimum is also required. Exemptions can be made from the rule, of course, when special circumstances arise.

Non-permanent posts are granted to persons only filling the first requirement: the lower or middle department teacher certificate.

2. The Upper Department of the Comprehensive School

Assistant Masters

In the upper department there are different ways of qualifying for an assistant master post, as far as the theoretical requirements are concerned. First, by passing the "filosofie magister" examination; secondly, for elementary teachers, by taking four of the six credits required for the "filosofie magister" exam; and, thirdly, also for elementary teachers, by undergoing an extension course in addition to obtaining two university credits. In cases where a post includes the subject religious knowledge, bachelors of theology, who in addition have certain other university credits, are qualified for appointments as assistant masters. Apart from fulfilling these requirements for theoretical education, an assistant master must have completed a practical course in education. Finally, appointments to permanent posts are made only after two years of service.

Special Subject Teachers ("ämneslärare")

The teacher shortage has been, and will be, most alarming as regards the university trained assistant masters. One of the measures taken to remedy this shortage has been to provide the upper department with supplementary trained elementary teachers to teach in special subjects. As a result, the staffing situation in this department is such that 60 per cent of the instruction is to be done by assistant masters and 40 per cent by supplementary trained elementary teachers. The qualifications required for being appointed to the so-called posts for "special subject teacher" are to hold, naturally, an elementary teacher certificate in addition to either a theoretical subject training equivalent to two credits of the "filosofie magister" degree or to have passed a special supplementary training course arranged by the National Board of Education. Moreover, a two years' training service as an elementary teacher is required before being appointed.

For the technical and commercial subjects, posts have been established especially for "gymnasium" trained engineers and economists (secondary level graduates), who have passed a supplementary training course comprising two terms, specifically established for this purpose by the National Board of Education.

3. Upper Secondary Schools. Assistant Masters ("adjunkter"), General Theoretical Subjects

Usually a "filosofie magister" (Master of Philosophy) degree from a university together with a completed course in education is required for appointment as an assistant master. The "filosofie magister" examination is taken in two or three subjects in various combinations according to the candidate's choice and the grouping of the subjects in the curriculum of the upper secondary schools. To pass, candidates must obtain a minimum of six credits.

If the post includes the subject religious knowledge, bachelors of theology, who in addition have certain other university credits are qualified for assistant master posts.

Senior Masters ("lektorer")

In addition to passing the "magister" examination and the course in education, a future senior master must pass a higher examination known as "filosofie licenciat", which requires three or four years of study of one subject after the "magister" examination.

In order to be appointed to a permanent post both assistant and senior masters must have completed two years of service.

4. Upper Secondary Schools, Technical and Economic Subjects

The problems connected with the teacher supply to the technical and economic subjects of upper secondary schools are somewhat different from those of the general subjects of upper secondary schools. Completely different teacher categories are used for the technical and economic subjects. The demand for this type of manpower from the other sectors of the economy is strong. These circumstances mean that other instruments must be used for increasing the teacher supply of this group than for other teacher categories.

As regards the qualifications required for teachers in the technical and economic subjects, it should first be mentioned that there are mainly two types of teachers, senior masters ("lektorer") and assistant masters ("adjunkter").

As for senior master posts in the applied technical or specialised economic subjects, on the other hand, a university degree of technology or economics respectively, is required in addition to two years of teaching and certain scientific achievements in the relevant field. Due to a small supply of candidates, exemptions have often been made from the two years of service required.

The requirements for assistant masters in technical subjects are formulated in rather general terms. Qualified are those "who by the National Board of Education are declared qualified on the basis of theoretical and, in cases where applicable, practical training". According to the Board, this freedom has been of paramount importance for pursuing a flexible recruitment policy as regards teachers for the technical and economic branches of the upper secondary schools. In principle, however, a compulsory prerequisite has so far been a practical training certificate.

CHAPTER V

CAREER POSSIBILITIES AND CONDITIONS OF WORK

In this chapter an attempt will be made to examine briefly on the one hand the load of work falling upon a teacher and on the other hand the remunerations received for this.

1. Teachers' Work Load

The framework - which frame is often surpassed - for the teacher's load of work is provided by the rules in the School Regulations governing the teaching hours to be performed by each type of teacher. According to these rules, full-time class teachers in the lower and middle departments are required to teach 30 hours/week (30 x 35 weeks = 1,050 hours/year), full-time teachers in the upper department 24 hours/week(1) = 840 hours/year (24 x 35) - full-time teachers of theoretical subjects in the "gymnasium" and at the specialised professional school (the "fackskola") 21 hours/week(1) or 735 hours/years (21 x 35). Teachers of vocational subjects are required to teach 36 hours/week and yearly between 1,404 and 1,512 hours. There has been no significant change in the number of hours required over the last ten years, except that the teaching load for lower department class-teachers in 1962 was raised from 28 to 30 hours.

However, due to the great lack of teachers in the upper department and higher up, teachers on these levels, as a rule, voluntarily work some hours overtime weekly. There is no upper limit for overtime work, which means that some teachers actually manage a substantial amount of extra hours per week.

The following table illustrates the extent of overtime instruction performed by subject-teachers (the upper department and the secondary levels).

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(1) Actually, the teaching load is defined as 18-30 hours/week with an average of 21 and 24 hours/week respectively within each school unit. Within this range the headmaster decides the teaching load for each teacher with consideration taken to the weight of the work involved.

Table 15: Over-time Instruction in Different Subjects expressed in per cent of the total Instruction and in Corresponding Number of Posts (number of hours divided by the stipulated teaching duty) in the Upper Department of the Comprehensive School and Upper Secondary Schools, Autumn 1960

Subjects	Religious Knowledge	Swedish	Latin	Greek
1. In per cent of total tuition in the subject.	3.9	5.4	7.8	8.9
2. Expressed in posts.	28	100	14	4

	English	German	French	History
1.	6.0	6.4	6.8	5.5
2.	102	105	41	79

	Geography	Mathematics	Biology	Physics	Chemistry
1.	5.1	8.8	9.2	10.2	9.4
2.	40	169	79	102	75

	Total overtime tuition in these subjects
1.	7.3
2.	938

Note: The data above refer as far back as to the year 1960 but are the only ones available.
The teacher statistics for that year have later been found to be to some extent incomplete.
Thus, the figures given above might not be totally reliable. It is probable that the proportion of overtime teaching now is higher.
According to the table, the amount of overtime instruction carried out by the teachers is considerable.

The reason why so many teachers accept a rather heavy overtime teaching load is that overtime is a major way for a teacher to increase his salary. Overtime payment is equivalent to that of regular hours. If a teacher is required to teach 24 hours a week but works another 8 hours overtime regularly each week, the pay for these extra hours will in other words amount to one-third of his normal salary.

The stipulated number of teaching hours is certainly one indicator of the extent of the total work to be performed. However, it evidently does not give the entire picture, since, among other things, it would be necessary to have information on the amount of time spent on work outside the classroom, intensity of the total work, type of tasks performed etc. Little information exists at present on this topic however, but the field is being investigated by "ULA", the committee for investigation on the teacher's working conditions. This committee was nominated by the Minister of Education in April 1964. The idea of such a study was brought up when the teacher organisations presented their reaction to the comprehensive school proposal. It was then held by these organisations that the school reform would entail a considerable increase of the teacher's work. Exact information on the existing conditions - as well as, naturally, the future situation - was found to be practically non-existent. Therefore, the ULA committee was set up. The Minister of Education charged the group with two tasks. Firstly, to make a thorough examination of the actual, entire amount of work to be performed by the teacher. The results would then serve as a basis for an evaluation of the scope and intensity of the teaching task. This would obviously be of great value for the collective bargaining process between the teachers' organisations and the government. Secondly, the committee is to propose steps and measures which would promote the most "rational" execution of the different working functions embodied in the teaching job, in other words to make proposals for a more efficient utilisation of the scarce teaching force. In the terms of reference the Minister mentioned, in particular, measures that would relieve the teacher of routine jobs so that he should be able to devote himself wholly to more qualified pedagogical tasks.

The educational institutions subject to this investigation are the comprehensive schools and the secondary schools, although the first mentioned is to be stressed more. All teacher categories belonging to these establishments are included in the study. The first part of the investigation is to be devoted to a pure registration - as objective as possible - of the total amount of time required for the different work elements. To these data information should be added on the existence in the specific school - of all types of personnel, other than the teacher, material and equipment which could alleviate the teacher and influence the efficiency of the teaching process.

2. Remunerations

Teachers' remunerations are determined by negotiation between the government - represented by a special board - and the employee unions. Prior to 1966 civil servants did not possess full rights of collective bargaining; among other things they did not have the right to strike. As from 1966 civil servants have had full collective bargaining rights and their salaries are fixed by collective agreement. Agreements concerning teachers' salaries were concluded on December 14, 1966. As these negotiations covered not only the usual salary negotiations but also negotiations relating to a number of reforms - the coming Reform of Teacher Training, the 1964 "Gymnasium/Fackskola" Reform and the 1966 Reform of School Management in the Comprehensive School - the rise of salaries for most teacher categories was greater than for most other groups. The average rise of salaries for all teachers including university teachers was nearly 20 per cent. Comparisons wi[illegible] salaries in the private sector are hardly possible. Compar[illegible]ns will here, therefore, be made mainly within the government [illegible] local government sector.

Teachers are paid in accordance with a special schedule - the U schedule, which consists of 31 salary grades. Two to three years of service are generally required for a permanent post. During this period teachers are placed on a regulated promotion ladder, which means that they move up on a salary basis twice within generally three years. The starting salary is below the permanent staff level. All teachers with a permanent post receive a rise of salary after 3, 6 and 9 years of service. Certain teacher categories, however, may receive a general rise of salary after, for example, 15 years of service. The salaries for certain important groups of teachers in the Autumn of 1966, under the new agreement are tabulated below. Salaries of teachers with permanent posts are shown. Salaries differ to some extent in three classes of localities. The middle class is shown here.

Table 16: Monthly Salaries for certain Teacher Categories 1966

	Starting salary	Final salary
Primary teachers	Cr.	Cr.
Lower department teachers	1,913(1)	2,251(1)
Special teachers, lower department	2,374	2,793
Middle department teachers	2,251(2)	2,646(2)
Special teachers, middle department	2,793	3,282
Middle department teachers with further training	2,793	3,282
Teachers in practical and artistic subjects		
Music, physical education, art	2,646	3,110
Handicrafts, domestic science	2,251	2,646
Vocational teachers	2,506	2,949
Academically trained special subject teachers		
Senior masters	3,859	4,534
Assistant masters	3,282	4,073(3)
School management		
Headmasters at Comprehensive School	4,350-5,078	(4)
" Gymnasium	4,792(5) - 5,888(5)	(4)
" Vocational Schools	4,350-5,510	(4)
Director of studies at Comprehensive school	4,350	(4)
Director of studies at Gymnasium	5,078	(4)

Notes. To obtain the annual salary these salaries should be multiplied by 12. One U.S. dollar is equivalent to 5.17 Swedish Crowns.

(1) From July 1, 1968, 2,020 and 2,374.
(2) From July 1, 1968, 2,506 and 2,949.
(3) After 15 years.
(4) Headmasters are placed directly on the final salary level.
(5) Including increment above scheduled salary.

The rise of salary for some of these groups from 1950 to 1966 will be seen from Table 17.

Lecturers in teaching-methods at specialised colleges of education usually have a salary at least 15 per cent higher than corresponding teacher categories in the general educational system. Teachers' appointments at experimental and demonstration schools and tutors' appointments are also higher than the corresponding appointments in the general educational system. The local, regional and central administrative appointments are on the same salary level as the highest paid headmasters.

The nominal salaries of certain teacher groups have been shown above. But it must be remembered that teachers have usually good prospects of extra earnings in their profession. An investigation in the Autumn of 1965 showed that large groups of teachers, such as permanent assistant masters and senior masters received government salary increments of 20 per cent and above. This is distincly more than most non-teacher groups within the public sector. This point is dealt with in greater detail in the sequel.

Since the new salaries have been fixed so recently, it is impossible to make a statistical comparison between teachers and other groups. The comparisons that follow here, are more or less of a formal nature. A senior master has the same salary as the 3rd promotion level, which is often the final level, for university graduates in government administration, or the same salary as has an assistant professor. Secondary school assistant masters'salaries are between that of the first and second promotion level for university graduates in government administration. Middle department teachers have a slightly higher salary than an unpromoted social welfare officer (with 2½ years academic training) in local government service. The lower department teacher, consequently, has a lower salary than the latter. The highest paid headmaster group has a higher salary, than, for example, a Head of Division in the civil service or a full professor.

A comparison between salaries in the civil service and private sectors is very difficult. In general it may be said that, for example, the starting civil service salaries for university graduates are on an equivalent level, while the top management salaries in the private sector are above civil service salaries.

A comparison between salaries of teachers and those of other categories is, as mentioned above, all the more difficult because of the much larger possibilities for teachers to make extra earnings. The main item is overtime instruction. There are also a large number of increments. The proposed increments for heads of department (See section C) amount to 2,400 or 3,000 crowns a year. It is calculated that these will be paid to some 11,000 teachers. Two hundred in service training consultants and directors receive 650 crowns a month. There are also a large number of other increments for teachers.

Table 17

Monthly Teacher Salaries

	1950	1955	1960	1965	1966	Nominal salary increases 1950-1966(1)
1. University graduates						
A. senior masters-doctors	1438-1564	2128-2334	2634-3075	3481-4065	3923-4580	3016
B. senior masters-licentiates	1347-1480	1979-2197	2375-2773	3140-3666	3923-4580	3100
C. assistant masters	1234-1396	1813-2060	2255-2634	2831-3307	3360-3923	2527
2. Non-university graduates						
A. Special subject teachers	1119-1292	1645-1898	2034-2375	2554-2982	2877-3360	2068
B. Middle department teachers	805-955	1185-1405	1572-1835	2188-2554	2341-2733	1778
C. Lower department teachers	568-641	914-1021	1154-1346	1690-1974	2005-2341	1700

Notes

Salaries expressed in Sw. crowns, current prices, initial and final salary step and based on the salaries for most expensive geographical regions.
Teachers in vocational, practical or artistic subjects are not included.
The salaries cover only teachers with permanent appointments; such posts require 2 - 3 years' previous training.
The initial salary for non-permanent assistant masters with full formal qualifications but no teaching service, amounts to 2,135 Sw. crowns (1965).
(1) Increase as counted on the final salary steps.

Fringe Benefits

One major problem when comparing the salaries of the teaching profession with those of others is the evaluation of such benefits as the holidays a teacher is entitled to. As mentioned before, the school year regularly comprises 39 weeks, which leaves 13 free. If one week is deducted for general preparatory work, the remainder is still 3 months'non-working time. This is considerably more than any other employee in public service is granted since the right to holidays for groups on salary levels comparable to teachers, range from 30 days to 45, this last figure being the absolute maximum and granted only when the employee reaches the age of 40. The question is then whether the difference between the length of teachers' holidays and those of other public employees should be evaluated on the basis of what teachers can earn by taking up extra jobs during this time and in so doing add this income to the regular teacher salary, or whether the salaries of the other employee group should be reduced by the same proportion as their length of work exceeds that of the teachers. The problem will be left aside here by just keeping in mind the fallacies of drawing strict salary comparisons between groups with different conditions of work.

In this connection the pension arrangements for teachers should be touched upon. All employees of the public service are covered by the General State Pension Rules, which entails that these benefits are granted on the same conditions for all such employees. Full pension allowances, granted after 30 years of service amounts to about 65 per cent of the salary received during the five highest past years. If a person has been in service for less than 30 years, the pension is proportionally reduced.

Another important benefit is the right to study-leave, to which all teachers holding permanent posts are entitled. The conditions are rather favourable: about 2/3 of the regular salary is granted during the period of study-leave on the condition that this does not exceed 240 days. Yearly, around 2 per cent of the total teaching force take advantage of this possibility either to undergo supplementary teacher training or to do research work.

3. Promotion Possibilities

(a) Introduction

The chief means of promotion for teachers in Sweden previously have been headmaster appointments and teaching at higher stages - middle department teachers, for example, have gone over to teaching in the upper department of the Comprehensive School. Recently there have been increased possibilities of obtaining higher paid appointments also in specialised colleges of education or in the in-service training organisation, and as special teachers in the lower and middle departments of the Comprehensive School.

This has meant that promotion has generally resulted in the teacher wholly or partly abandoning teaching or changing to a higher department or school. There has been no great possibility of promotion while continuing to teach in the department or school the teacher was trained for. One consequence of this has been that, often, the best teachers are enticed either to leave the department or school they were trained for, or altogether or partly to give up teaching.

To remedy this unsatisfactory state of affairs the parliament decided in 1964 to arrange for appointments as head of department teacher in the "gymnasium" carrying an increment of salary. The government bill on reformed teacher training proposes that such appointments shall be provided also in the lower, middle and upper departments of the Comprehensive School and in the "fackskola" and vocational schools. Among the tasks of a head of department will be the planning of teaching within his subject, subject field or department (as regards primary teachers) for which he receives an increment above the scheduled salary.

(b) Survey of promotion prospects

To present a more systematic picture of the chances of promotion, the chief means of promotion will be considered below.

Head of department posts

Head of department appointments will be arranged in the middle department of the Comprehensive School, at vocational schools, "fackskola" and "gymnasium" in a subject or group of subjects when the total number of hours taught per week exceeds 35 (gymnasium/"fackskola") or 40 (other schools). In the lower and middle departments they will be arranged in a Headmaster's Area when there are four or more classes in the department. At most, three such appointments can be made in one Headmaster's Area. The total number of head of department appointments may be expected to be 10,000 - 12,000, which means that perhaps one-seventh of the more than 80,000 teachers can gain access to such a post.

Special teacher appointments

By taking a one year's course teachers in the lower or middle departments of the Comprehensive School can qualify for special teacher appointments in the same departments. They then teach in special classes. They hold a permanent sraff appointment and their teaching load is reduced. Three to four thousand special teacher appointments will be required.

Teacher training organisation

Within the teacher training organisation teachers can obtain appointments of chiefly three kinds according to the recent government bill on reformed teacher training:

(i) Lectureships at specialised colleges of education for teaching-methods at secondary level in the training of prospective special subject teachers at the "gymnasium", "fackskola" or upper department of the comprehensive school, and lectureship in primary teaching methods for prospective teachers in the lower middle department of the Comprehensive School. There are corresponding teacher appointments at specialised colleges of education and other training institutes for practical and artistic subjects. These various teachers hold permanent staff appointments and teach to some extent within the general educational system.

(ii) Teachers at experimental and demonstration schools. These teachers hold 6-year appointments and their teaching load is reduced.

(iii) Tutors for teacher training outside experimental and demonstration schools. These teachers hold 3-year appointments with increment above scheduled salary and their teaching load is somewhat reduced. (For salaries see section B above). As the Teacher Training Bill does not contain detailed regulations governing the new teacher training, it is difficult to calculate exactly the demand for teachers.

Roughly the demand may be said to be about 3,000, all of whom would be recruited from teachers in the general educational system.

In-service training organisation

In the regional continuation training organisation there are some 200 appointments as continuation training consultants and directors of studies, who generally hold half-time appointments as teachers and, therefore, spend half their time on in-service training. Their appointments are for one year at a time and they receive an extra fee.

School management

School management consists of headmasters and directors of studies. The post of director of studies has been introduced in the last few years; they may be said to be assistant headmasters whose job is to concentrate on the educational problems of the school management. School management staff, hold permanent appointments, usually for a period of 6 years and with generally limited teaching duties. Since they are generally required to have qualifications for ordinary teaching duties, they are recruited principally among teachers. The number of school management staff in the comprehensive school, "gymnasium", "fackskola" and vocational schools may be calculated at between 2,000 and 3,000.

Educational administration

There are administrative posts etc., reserved for teachers at the local, regional and central level. There are some 300 such appointments.

(c) Summary

There are altogether rather more than 20,000 posts in which teachers within the comprehensive school, vocational schools, "fackskola", "gymnasium", etc., can obtain promotion. As the total number of teachers is 80,000 - 90,000 one in four or five teachers thus has the chance of promotion. This is excluding the change from one stage to another. For teachers in the middle department this is at present the most important means of promotion.

Nor has account been taken of the means of promotion outside the actual educational system - e.g. in school-book production or school radio and television broadcasting. It is naturally possible, too, for teachers to reach higher appointments not reserved to teachers within educational administration.

CHAPTER VI

IMPROVEMENT OF TEACHING[1]

1. Introduction

Improvement of the teaching process can obviously be achieved in many different ways and it can for instance imply the use of more teachers per pupil as well as fewer teachers. However, the methods chosen have naturally to take into consideration the real and human resources available. In an educational system which has long suffered from an insufficient supply of teachers, and which has to take future scarcity of teachers into account, the instruments to be used from the amelioration of the teaching process must by necessity be subordinated to this situation of limited resources. Thus, it is important that the available teachers be utilised in the most efficient way. Naturally, much would be gained from a financial point of view if it were possible to decrease the need for teachers, since teacher salaries form the major part in educational expenditures.

Hence, among the measures and projects envisaging an improvement of the teaching process the discussion will be concentrated on those that might have a bearing on the question of teacher needs. This kind of project could be classified in two main categories: (a) those which would have a direct effect of lowering the teacher need, i.e. employing a labour saving method, and (b) those, although not primarily concerned with teacher needs, which might have an indirect positive effect on teacher supply (i.e. ameliorating the status and working conditions of the profession and thereby making it more attractive).

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(1) The sections in this chapter that deal with the research activities have largely been based on a memorandum of the National Board of Education.

The aspect from which improvement of teaching thus will be treated here, involves automatically the concept "teacher productivity".

Clearly it is impossible to isolate the "teacher productivity" and treat this as a factor independent from the total system. Also, since there are as yet no instruments by which the teacher productivity could be measured, it might seem rather senseless to introduce the concept in this context. However, although hard to isolate and measure, the existence and importance of the teacher productivity cannot be neglected. A raise in the teacher productivity would imply - while keeping all other factors constant, including the numerical teacher input and the quality of pupils entering the system - either that the number of pupils (but of same educational quality as before the productivity change) "produced" would increase, or that the quality of the pupils but of the same number "produced" would increase, or a combination of the two alternatives.

This chapter will be concerned with the factors determining the productivity of the teacher and, more precisely, what has been done or is being done in Sweden affecting the teacher productivity. The teacher efficiency is here assumed to be dependent on mainly the quality of the initial teacher training, the frequency and contents of retraining and refresher courses, the quality and quantity of aids put at the teacher's disposal (from conventional textbooks and self instructing materials to assistant personnel) as well as organisational structure of teaching. Since the most interesting features in Sweden in this area now are to be found in the educational research activities and experiments going on, this chapter will put a certain stress on this side.

2. Present class sizes

Before examining the measures taken for improving the efficiency of teaching, we shall take a look at the prevailing Swedish situation of pupil/teacher ratios and class-sizes to get one indicator for how teachers are used.

The shortage of qualified teachers must be seen in close relationship to the general, insufficient supply of qualified manpower in the Swedish economy. While other sectors facing this problem tend to substitute capital for human labour, thereby lowering the labour-output ratios, the educational sector has so far seemed to move in the opposite direction, i.e. to increase the amount of human labour deployed per pupil. This evidently aggravates the gap between need for and supply of teachers.

With the introduction of the comprehensive school in 1962, the stipulated maximum class sizes were lowered to 25 pupils in the lower department and to 30 (from 35) in the middle and upper departments. These figures do not directly indicate the pupil/teacher ratios. This means, for example, that a new class has to be formed as soon as the number of pupils exceeds 30 in the upper department in one school unit. But, other things being equal, a lowered class size would naturally mean a lower pupil/teacher ratio.

The reason for the decision on decreased class sizes, and consequently lower pupil/teacher ratios, is to be found in the new school's principle of individualised instruction. At the time of the reform, it was thought that lower ratios would promote the implementation of this principle: the fewer pupils per teacher, the greater the chances for successful individualised instruction.

Not only were the maximum class sizes lowered with the introduction of the comprehensive school, but the basis for determining a school's "recruitment area" (i.e. the geographical area from which a specific school recruits its pupils) were also changed. Before 1962, the unit to which the maximum class sizes were applied was the entire municipality, which meant that "surplus pupils" of one school could be transferred to fill gaps in another school of the same municipality in order to avoid forming an extra class. In 1962 the regulations were changed, and the single school unit was made the base, rather than the entire municipality. However, a certain flexibility in the application of these rules was assumed. The results of the two factors analysed here have been: decreasing class sizes, an increase in the number of classes, and, as a consequence, an enlarged need for teachers.

In the table below the pupil/teacher ratios for the year 1965/66 are shown.

Table 18: Pupil/Teacher Ratios(1) in the School Year 1965/66

Comprehensive school (2)	
Lower Department	16.7
Middle Department	17.9
Upper Department	13.7
"Fackskola"	13.4
"Gymnasium"	14.4

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(1) The basis for the assessment of the pupil/teacher ratios has been the total number of teaching hours divided by the required teaching load for the individual teacher.

(2) The ratio was based on normal and special classes taken together. The ratios for the latter considered alone are actually much lower.

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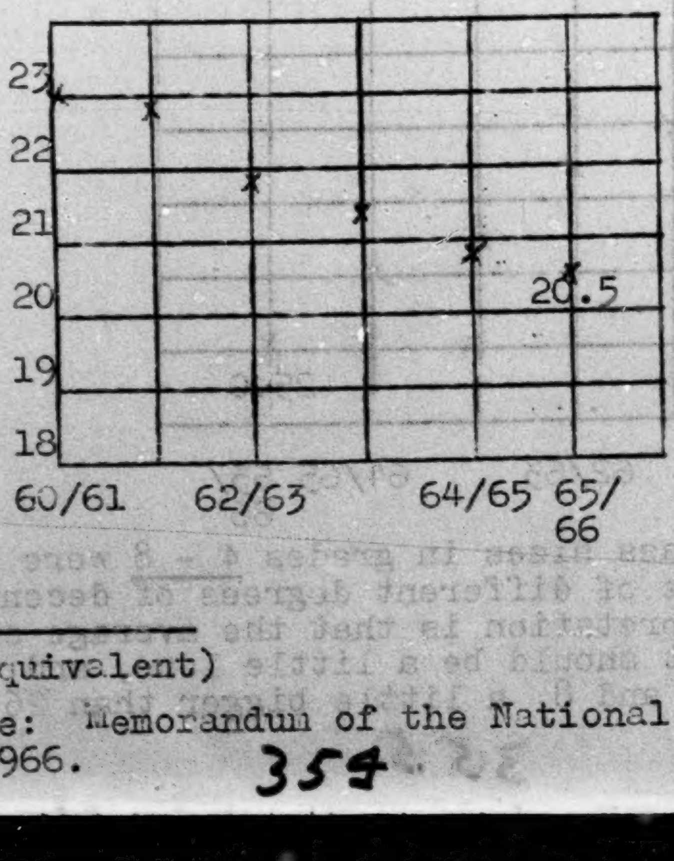
Two additional factors which may have contributed to the situation described above should be mentioned: first, the migration towards urban areas, which may necessitate new classes in the towns while, at the same time, the number of classes in the rural areas, though less "filled" may remain the same. Secondly, the annual "batches" entering the schools have been decreasing in size, which has entailed smaller (less filled) classes since the tendency has been to maintain the same number of classes. Thus, the increase in teachers previously required to meet the war-time "baby boom" has not been reversed even though the numbers of children entering school have declined following this boom.

Diagram II : Average Class Sizes for the Regular Classes of the Comprehensive School(1) during the period 1960/61 - 1965/66(2).

Lower Department (legal maximum class size: 25; class size intended: 20.5).



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(1) (or equivalent)

(2) Source: Memorandum of the National Board of Education, 7.2.1966.

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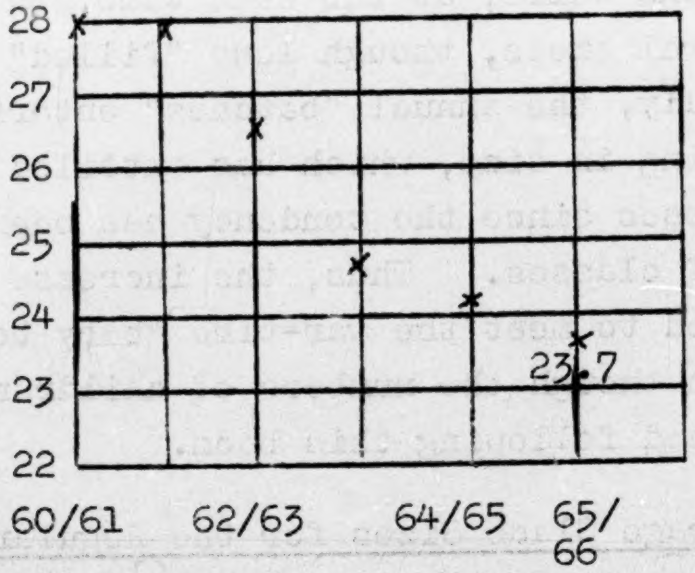
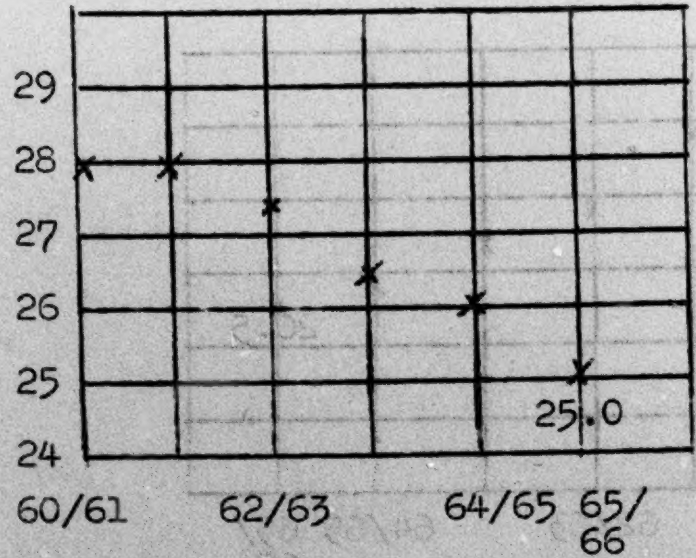
Middle Department: legal maximum class size: 30; class size intended: 26.5(1)



Upper Department legal maximum class size: 30: class size intended: 26.5 in grade 7 and 8, and 22 in grade 9.



(1) Actually, the class sizes in grades 4 - 8 were intended to be 26 - 27. Because of different degrees of decentralisation, a reasonable interpretation is that the average class size in the middle department should be a little less, and the average class size in grades 7 and 8, a little bigger than 26,5.

It is seen that in the middle department the average class size is already smaller than was assumed in the decision of 1962. To avoid a continued decrease, the National Board of Education, following a statement by the Minister of Education in the budget bill, recently urged the local school authorities to take measures to bring the classes to the sizes envisaged by that decision. One of the means for attaining this goal is to allow for a greater flexibility in assigning pupils to school units. Attainment of the desired number of pupils per class means that the lower department classes should be kept at their present size. In the middle department the size should be increased and in the upper department the classes should remain approximately as they are.

3. New Methods of Teaching and Teacher Functions

To cure the general rather unsatisfactory situation in Sweden as regards efficiency in the teaching and learning process an educational research and development activity is today taking place with the aim of investigating the possibilities for and effects of an extensive use of devices in the school system as well as other means for improving the teaching. It should be stressed that the primary aim of this work has been to find means of raising the quality of teaching with a view to produce "better" students but not necessarily by using fewer teachers. This does, however, not exclude that the research results could indicate labour saving methods.

In this section a survey of some experiments and projects undertaken will be given. Although their importance might in some cases be on a long-term basis, their activities indicate such a radical change of approach to the problems and might consequently have large effects on the teacher situation, that they should be considered in this context.

The planning of educational research is in Sweden carried out by both the institutes of education (belonging to the universities and the specialised colleges of education) and the Research Planning Bureau of the National Board of Education. This bureau was set up in 1963 and is charged with the task of initiating and planning important educational research projects at the institutions. Although these research activities have only been going on for a few years, one can already point out positive results, which, if applied in the educational system, would completely change the structure of teaching as well as the function of the teacher.

Two types of goals may be present in organisational school experiments (sometimes combined in the same experiment): (a) to investigate the possibilities (and effects) of changes in the tasks of the school staff, and (b) to investigate the possibilities (and effects) of new and better methods of work for the students.

(a) Investigation of working conditions

The efficient use of a teacher depends upon the type of functions he is given.

However, little is at present known about the actual performance of the teacher and therefore a committee was nominated in the Spring of 1964 under the name of "ULA", the Committee for Investigation of the Teachers' Working Conditions. The Minister of Education charged the groups with two tasks.

First, to make a thorough examination of the actual entire amount of work to be performed by the teacher. The results would then serve as a basis for an evaluation of the scope and intensity of the teaching task. This would obviously be of great value for the collective bargaining process between the teachers' organisations and the government.

Secondly, the Committee is to propose steps and measures which would promote the most "rational" execution of the different working-functions embodied in the teaching job, in other words to make proposals for a more efficient utilisation of the scarce teaching force. In the terms of reference the Minister mentioned, in particular, measures that would relieve the teacher of routine jobs so that he would be able to devote himself wholly to more qualified pedagogical tasks.

The types of schools subject to this investigation are the comprehensive school and the secondary schools, although the first mentioned is to be stressed more. All teacher categories belonging to these schools are included in the study. The first part of the investigation is to be devoted to a pure registration - as objective as possible - of the amount of time required for the different work elements. To these data information should be added on the existence - in the specific school - of all types of personnel, other than the teacher, material and equipment which could alleviate the teacher and influence the efficiency of the teaching process.

This project has considerable long-term possibilities. If, as a result of the enquiry, a more far-reaching functional division of the work now performed by the teacher were to be undertaken, the utilisation of the professionally qualified teacher could gain in efficiency. The teacher would only perform tasks for which his or her qualifications are actually required, while the other functions would be carried out by less qualified personnel. In other words, the teaching job might well be split up into several different jobs, each requiring its special manpower and instruments according to the special function. Two things might then be achieved. First, the productivity of the numerically scarce professional teachers could be greatly increased - which would be tantamount to rationalisation in the educational system - and secondly, since the function of the teacher would then be changed into one more professionally demanding, the attractiveness and status of the profession itself might be ameliorated.

(b) Teacher-pupil interaction

A subject closely related to the functions of the teacher is that of the interaction between teachers and pupils. Studies in this field have been considered as exceptionally important by the Swedish educational authorities. Work in this sphere has been prepared at the institutes of educational psychology at the schools of education. Among other things, it is considered essential that observation methods and variables for empirical studies in various didactic situations are developed. These may be concerned with methods of communicating knowledge, methods of avoiding disturbance in the form of undisciplined behaviour in the classroom, methods of social training, etc.

The planning carried out hitherto has led to the use of closed-circuit television and video tape recording of classroom activities. Events recorded in this way open up many news paths for the development of techniques of observation and analysis of the working conditions of students and teachers. By the help of these techniques, new, relevant classroom observations will probably be made. These studies will also be of great value in teacher training.

(c) Flexible grouping of pupils

Another factor which evidently plays an important role for the use of the teacher is the organisational set-up of teaching. Experimental work with flexible grouping of pupils ("Trump experiments") began in the Autumn of 1963 with classes of varying size, team teaching and the like. In spite of the limited extent of these studies and the fact that the results have not yet been clearly demonstrated, these projects have aroused much interest and stimulated greatly the debate on education in Sweden.

The experiments during 1964/65 have taken place at six secondary schools of different types and levels. At all these schools, the experiment was concerned only with single subjects and classes. In the school where the most extensive experiment was made, three forms and six different subjects were involved.

These studies have been designed as "functional experiments": the preparations have been rather limited in scope, and the purpose has been to study, on a small scale, the possibilities of making certain organisational changes in the work of the school. The studies have not, therefore, resulted in any scientifically demonstrated conclusions regarding the suitability of the arrangements. What is needed at this stage is to find out the difficulties to be overcome, and the conditions necessary to ensure that the methods correspond to the aims, and that the new methods of work can be used by average teachers. The attitudes of teachers and students to the experiment are also studied.

Organisational experiments of the type outlined here are very important. They may reveal better methods, which can relatively simply and rapidly be introduced into the work of the school. There is no doubt that they help to keep alive the interest of headmasters and teachers in the reform work, and stimulate it still further. They also show which items of the systematic studies are most urgent. One example of this is that "Independent study" is difficult to bring about without great teacher efforts in the production of study material.

The teachers who have participated in the above-mentioned experiments found among other things that the time required for the planning, the provision and even the manufacturing of the teaching materials was too long. There are also difficulties to give the pupils belonging to a large class a concrete and attractive description of the syllabus.

In an experiment taking place at present (Autumn of 1966) these disadvantages will be counterbalanced by centrally produced and distributed information on the aims, the disposition and the implementation of the instruction of one part of the course. Moreover, television programmes are mainly used for the teaching of large classes, radio programmes for the teaching of parts of classes and booklets related to this and other literature are used for the independent work of the pupils. In a number of schools, video-tape recorders are used to facilitate the fitting in of the TV programs into the instruction. A large class can consequently be split up into three parallel sections which at the same time take part in TV and radio programmes in their respective ordinary rooms after an introduction by a teacher in a larger room where all the pupils are assembled.

An estimation of the experiment will be done through investigations and interviews. A report will be available in the summer of 1967.

A more comprehensive research project, which may be described as an outcome of the experimentation of recent years with flexible grouping, is concerned with an increase in the amount of independent work in the "gymnasium". The experiments are carried out during 1965/66 by a project group attached to the Stockholm Specialised College of Education.

The purpose of the project is to study how instruction based on a great amount of independent work by the students affects the students' knowledge, study skills, ability to work independently, responsibility for their own tasks, interests and attitudes.

(d) Individualisation of instruction

Another group of projects are those concerned with studies of the individualisation of instruction. One of the fundamental findings of educational research, which is now becoming generally accepted, is that the great individual differences between pupils at a certain age level justify an individualisation of instruction. Conventional class instruction, which implies that an attempt is made to teach all the pupils in a class the same material at the same time and in the same way, causes, from this point of view, great waste of the resources of energy and interest of both teachers and students. If instruction is to attain an acceptable level of efficiency, it must be adapted to the abilities of the individual students. Ideally, the forms of work in school should be such as to provide each pupil with optimal possibilities of learning, i.e. so that he or she may, from the existing level of knowledge and skill, advance gradually to higher levels. It must always be possible to devote a considerable part of school activities to the individual pupil instead of to the class. There seem to be better prospects now of doing this than earlier, thanks to the progress made in learning material, methods and technical aids, etc.

The aim of one of these projects is to study the possibilities and effects of individualised instruction in mathematics in the upper department of the comprehensive school.

The experiment was carried out, at the first stage, by using two teachers for one big group of pupils - originally consisting of three separate classes, each with one teacher and by basing the teaching on programmed and individualised instruction materials. This led to the following results. The time of the direct instruction was reduced although the total amount of the teacher's work was increased, since he now had to devote considerable time to book-keeping and control of pupils' results.

In other words, the function of the teacher had radically changed. Since the teachers found themselves over-qualified for the controlling work, this job was taken over by an administrative assistant (educated for office work). In this way the instruction which originally was taken care of by three teachers, was handled by two teachers, one administrative assistant and a set of programmed instruction material. Although the costs for the two latter equalled that of the replaced third teacher, a 30 per cent saving was made of the scarce teacher resources at the same time as a completely individualised teaching method was achieved. This project will be extended to comprise 2,000 introduced in several schools. The absolute prerequisite for the success of a project of this kind is that the instruction material is adequately elaborated in the sense of being differentiated, so that each pupil gets the possibility and motivation for working according to his special ability. For the subject mathematics it is now known that such material can be produced, Projects of the type described are now being carried out also for the subjects history and English language.

It is the strong belief of the Board of Education that it is possible to produce adequate and individualised instruction materials for all subjects if only more capital were invested into educational research. For the elaboration of material the Board recommends that project groups are set up, at least one for each school subject, within the university institutions with the task of elaborating such material. Each group would consist of experts in pedagogics and psychology as well as in the special teaching methods of each subject. When a system of methods has been developed in each school-subject a uniform programmed teaching-course would be produced for each separate subject.

In the field of pedagogic equipment, the National Board of Education - partly as a consequence of exploratory studies - has, during recent years, planned and initiated production - oriented research and development activities. In a few different project groups, the systematic construction and testing of systems of methods and material is already under way. The purpose of this work is to study the effect of the concretised methods of work introduced in this way. It is expected that there will be several different projects of this kind in 1966/67, primarily at the institutes of educational psychology attached to the specialised colleges of education.

To iterate, the mathematics project showed that the teacher input could be considerably reduced, while the teaching quality was definitely raised. Since the results of only one experiment do not suffice as definite evidence, the Board of Education is now intending to start several new projects of this character.

(e) Programmed instruction

As regards programmed instruction (P.I.), the interest in this new teaching technique has been steadily growing since the introduction of P.I. in 1960.

The institutions of educational psychology at the universities of Göteborg and Stockholm were the first to introduce programmed instruction research on a broader scale. With the aid of consultants from an institution of educational psychology, and with the financial support of a correspondence school, a commercial institute of programmed instruction has been established.

At the same time studies of the new method were taken up by other institutions, e.g. The National School for Educational Research, Linköping, the specialised colleges of education in Stockholm and Malmö and the institutes of education at the universities of Uppsala and Lund.

If we try to characterise the situation, we might say that we have run through the first phase, the informative phase, and passed over to the next, i.e. the experimental activity. The universities have mainly been spreading the information about the new technique, they have arranged courses in programming, workshops and seminars. The information has far from saturated the educational area, however, it has reached wide circles. A few publishers have shown great interest and started some work and planned more. Linear programmes are predominant but very few branching courses have been developed.

As regards the length of the programmes the tendency is to develop short programmes and avoid long courses. There exist only three year-long courses. The project at the Specialised College of Education in Stockholm is, however, a comprehensive reading programme, but it should be observed that it cannot be considered as programmed material according to the more generally applied rules.

The interest in teaching machines is increasing. Experiments are going on at the above-mentioned institute as well as the National School for Educational Research in Linköping.

The evaluation of programmed material has been studies by the National Board of Education. The Board has issued provisional standards for P.I. - materials. In accordance with these provisional standards the National Board of Education has so far approved of 25 programmed courses, most of which are in mathematics and physics. The National Board has also developed a programmed course in spelling for grades 1 and 2. The course is integrated with conventional text material and classroom teaching. This project will also include some experiments with teaching machines.

(f) Language laboratories

In the autumn of 1964 the National Board of Education started experimental work with eight schools, equipped with language laboratories. The aim of the project is to ascertain whether the language laboratory has educational possibilities that the conventional methods of instruction lack. The local research leader of each school (from 1966/67 the project comprises 14 schools) has to a) produce adequate models (in the form of tapes, pictures and integrated texts), b) to evaluate the produced material, c) to gain experiences about methods and equipment. In the year 1964/65 150 tapes were produced in English, German and French. In 1965/66 225 tapes were produced.

The "learning studio" (the new name for "language laboratory") is looked upon as a supplement to the other teaching in the subject. One of the great problems of the experimental activity is therefore to find out what parts of the subject should be developed into taped material.

The reason why the term "language laboratory" has been changed is that not only languages have been taken up in this work. Experimental activit is also going on in mathematics, physics, chemistry, geography. A special production has been started for developing materials for handicapped people, especially blind, deaf, or mentally retarded.

Another project, in conjunction with the production of material for a language laboratory, is intended to investigate more thoroughly important problems of language teaching. It will comprise German, and has been planned by the institute of educational psychology at the Malmö specialised college of education. Since the Autumn of 1963, systematic language laboratory research has been carried on at this institute with financial help from the Swedish Social Science Research Council and the National Board of Education. This work will be expanded, which brings the need for subject matter experts into the foreground. If the developmental work of the kind mentioned here is to provide generally applicable methods within a reasonable space of time, conditions for intensive team work between research workers and subject and methods experts must be created.

(g) Present use of educational aids

Regarding pedagogic equipment used at present by the teacher who is not involved in experiments it could be said that such devices are, to a large extent put at the teachers' disposal and that the possibilities for the teacher to use audio-visual aids as an integrated part of the teaching process have increased. A large number of the teaching rooms for the comprehensive school are equipped with slide projector, tape recorder, loudspeaker, darkening curtains, screen and aerial for radio and TV. During the next three to five years, teaching rooms for the upper secondary schools will be equipped in the same way with the addition, to a certain extent, of overhead projectors.

Certain portable equipment is available to the teacher in a storeroom but intended for use in the ordinary teaching room. This is the case with film projector, overhead projector, opaque projector, radio and TV receiver and other equipment.

The possibility of using audio-visual and other aids in the ordinary teaching room could considerably make them become natural elements in the teaching process. As teachers would become used to using them the students would regard the aids as part of a lesson rather than a break in the every-day school routine.

Due to the fact that many teachers still lack the training for using educational aids in a methodically correct way some of them still look upon these aids as increasing their burden without reaching the corresponding improvement of the efficiency.

In order to provide the teachers with audio-visual media and thereby promoting the use of them, a number of non-commercial local or regional audio-visual distribution centers have been built up by certain local communities. Their media stock is partly bought from commercial and non-commercial producers and distributors and partly obtained by recording on tape of the "school radio" programmes. The National Board of Education has started to work in the field of educational films. Commercially produced films have received financial support and the Board has sponsored films on certain subjects without commercial interest. In order to profit from experience and productions in the educational film field made in other European countries, the National Board of Education takes an active part of the international film work.

Radio and television programmes with the relevant auxiliary material in the form of pupils' pamphlets, working folders, language books, etc., are increasingly used in the schools.

The programmes and the auxiliary material are planned in consultation with the National Board of Education, and produced and distributed by the School Broadcasting Department within the Swedish Broadcasting Corporation.

Around 1,500 radio programmes, about 240 television programmes and 150 books and pamphlets are produced at present (1966).

The consumers are the nine-year compulsory school and the gymnasium, the continuation school and the vocational school within the non compulsory school!

Information about school broadcasts is given,

a) in a special teachers' magazine (free)
b) in a programme calendar
c) in teachers' programme
d) at teacher-training colleges
e) on in-service teacher-training conferences.

There are some 70 regional and local distribution centres (Av-centres) in the country that record all school radio programmes. Schools can borrow tapes from them (see above).

Only very few schools have so far acquired video-tape recorders (1966). Because of the time-table difficulties of the schools, each programme is, therefore, broadcast three times.

At present the utilisation of school radio and TV is fairly high, but is only to a limited extent integrated in the general teaching process. However, in the coming Bill on adult education, proposals will be made to improve this situation especially for adult education and also to some degree for regular youth education. A very important new feature is that radio and TV in the future, according to these plans, are going to partly substitute the teacher.

4. Production of Material and Financing of Research

As stressed before, the successful implementation into the school system of the project results is highly dependent on the production of instruction materials. The new forthcoming initial phase of more extensive educational research and development activities must to a rather high degree be production-oriented. Research and development cannot, however, be expected to aim at the production of anything but prototypes, of systematically tested models of efficient instructional methods. These prototypes should, in their turn, stimulate publishers of textbooks and other instructional material to produce what is needed to ensure that the project results really lead to more efficient and more rational learning conditions in the various schools. The field is a very wide one, and the National Board of Education should, to a certain extent, take an active part in the actual production of school material. There is need for isolated measures for the production of learning aids, films, etc., in many spheres. This production may be confined to branches in which there is lack of such material as cannot be supplied profitably on a commercial basis (e.g. learning material for small groups of pupils). It may also refer to spheres in which steps, which for various reasons cannot be expected from the ordinary school material producers, must be taken at short notice.

Another factor which should not be forgotten is the resources of personnel, i.e. the availability of competent research workers.

In this respect, the situation at the schools of education is unsatisfactory. This is not, however, due to a shortage of competent research workers. At present there are many highly-qualified people trained for and willing to carry on research into problems of education. It is the great shortage of posts for research workers that causes the problem. At the already-established institutes, there are at present (1965/66) eight permanent research posts and seven assistant posts, as follows:

Stockholm	Malmö	Gothenburg
1 professor	1 professor	1 professor
2 associate professors	1 research secretary	1 research secretary
1 research secretary	3 assistants	
3 assistants		1 assistant

In addition, there are in Stockholm two temporary personal research posts, and, at Malmö, one temporary research assistant post. The costs of these posts are borne by the Swedish Council for Social Science Research. Well qualified research workers, i.e. people with assistant professor qualifications, must, therefore, in spite of definite interest in school problems, seek work in other fields.

Lastly, we shall take a look at the economic resources devoted to research and development.

The allocations made under the heading "Educational Development" in the government budget for the school system (compulsory and upper secondary school including administration, etc.) constitute only a very small proportion of the current costs of the school system (note that this excludes the educational research within the field of the Office of the University Chancellor).

The funds made available for research and development vary, naturally, from area to area. In Swedish industry they are calculated to be on the average at least 2 to 2.5 per cent of the total current costs. In branches where expansion is rapid the proportion set aside for R and D is often much higher: 10 to 15 per cent is not unusual. The total amount of money spent by the State on research in relation to total expenditure is estimated to have increased during the period 1961/64 from approximately 1.9 to 2.1 per cent. Sums indicating the size of costs of research include the costs of the actual research and the costs of developmental work carried on in close conjunction with research.

5. Channels for Improving Teacher Efficiency

In a rapidly changing society scientific progress soon makes specific subject matter knowledge as well as already accepted pedagogical methods out of date. Research and development activities do not by themselves, however, suffice to change the educational system in these respects. The results have evidently to be implemented. This implementation takes place mainly through the work of the teachers. Thus, the role of the teacher in the dissemination of innovation is highly important for its realisation.

The existing channels for influencing the teachers towards change are in Sweden first, of course, the initial teacher training, secondly, a system of continuing teacher education - refresher and retraining courses, thirdly, a system of consultants with the task of advising teachers in the work and fourthly, special centres for spreading information on teaching aids.

Increasing emphasis has been given in recent years to the importance of in-service training for teachers. Parliament has approved increased grants for this purpose, with particular reference to the training needed in connection with the introduction of the comprehensive school, the new "gymnasium" and the "fackskola".

The Swedish refresher courses stem from the conviction that the teacher's professional education by necessity must be a continuous and never-ending process. The task of the teacher is seen as being composed of two elements, neither of which is less important than the other: the supplying of information and the acquisition of information. In-service training must be regarded as an integral part of general adult education. Without denying the importance of the "individual motive" for such training, particularly up-grading training, its primary aim is in the prevailing full employment situation, to satisfy the qualitative and quantitative needs of the educational system. The importance of the training is particularly great where an educational system has undergone radical reform. Under the Swedish reform of the last years, not only the curricula but also the general ideology and objectives of the school have changed. In this situation refresher courses have the obvious task of acquainting the teachers with the aims and methods of the new school.

The blueprint for the present organisation of refresher and retraining courses was drawn up in 1961 with a view to meeting the needs arising from the anticipated educational reforms. This type of training existed before 1961 but was loosely organised and did not reach the teachers in any systematic way.

Although the demand on the part of the teachers for in-service training has so far exceeded the supply of places, there is perhaps one disadvantage in the present system: that the participation is voluntary, which means there is no assurance that all teachers who need this training will apply for it.

The sharp rise in the total sums represented by State grants for in-service training over the years will illustrate the growing importance of this activity:

	1958/59	1960/61	1961/62	1964/65	1966/67	1967/68
State grants in millions of Sw. crowns	1.4	1.5	2.5	17.5	19.0	21.4

The centres for information on teaching aids came into existence after a Parliament decision in 1962. Each country has one centre, which is affiliated to the county school board. The centre for the Stockholm county serves as national central and is linked to the National Board of Education. The task of these centres is to spread information on new teaching aids among teachers and school administrators and to see that such aids come into use. Apart from keeping registers on all pedagogical aids available on the market, the centres act as direct advisers to municipalities and teachers of individual schools. The national central furthermore is to take up proposals made on new types of teaching aids and to see that they be evaluated as well as, if proved to be satisfactory, that they be produced.

6. Final note

It stands out from the survey above that the main objective of the Swedish educational development work is to improve the quality of teaching in order to provide for a better and more efficient school, suited to the aims of the educational system. The results gained in raiding the productivity of teaching will be utilised primarily for producing students of a higher quality - according to Swedish educational concepts. However, this policy does not exclude the possibilities of rationalisations within the system, in other words, the introduction of teaching methods that would imply savings of teachers and costs.

METHODOLOGICAL AND STATISTICAL ANNEX

ANNEX I

Summary of the primary teacher forecast

The forecasting institute of the Central Bureau of Statistics published in January "Calculations concerning Demand and Supply of Primary Teachers". The report gives some information about the present shortage of primary teachers. It also presents some results from an intensified analysis of the Swedish teacher statistics. This information is then used for a number of projections of demand and supply of primary teachers (grade 1-6) in the comprehensive school. As a part of the teaching in the upper department of the comprehensive school (grade 7-9) should be made by primary teachers with supplementary training some projections are also done for teachers of the upper department.

The shortage of lower department (grade 1-3) teachers amounts to the equivalent of 1,400 full-time teachers. To some extent this shortage is the result of the fact that teachers trained for the lower department perform the equivalent of 800 full-time posts on the middle department (grade 4-6).

The shortage of middle department teachers has increased during the period of 1960-1966 and is now about 2,400 full-time teachers. (The total number of full-time teachers that would be needed for this stage is about 18,000). On the upper department of the comprehensive school (grade 7-9) about 40 per cent of teaching in theoretical subjects shall at present be made by middle department (grade 4-6) teachers with about one year of supplementary training. In 1966 the demand of middle department teachers trained for the upper department was equivalent to about 4,500 full-time teachers. One third of these teachers did not have the full training required by the regulations.

In the analyses of the teacher statistics the teachers were divided into 32 groups mainly due to their training. Each of these groups was divided according to sex; the analyses were thus performed for 64 groups of teachers. For each group the distribution by age and by average activity on different subjects was obtained. The activity was defined as fractions of a full-time job. The drop out and the recruitment was also obtained for each group.

In this report the demand and supply of lower and middle department teachers as well as of middle department teachers trained for the upper department have been studied.

The requirements have been calculated according to three alternative population projections and according to two different hypotheses for the average size of the teacher-pupil ratio. The supply of teachers has been calculated according to two alternative hypotheses for the rate by which active teachers may retire or otherwise leave the profession, two alternative assumptions about the training capacity of the teacher training institutions and two alternative assumptions about the number of teachers taking further training in order to be qualified for teaching on the upper department.

The supply of lower department teachers might be sufficient already about the year 1970. The supply of middle department teachers might be sufficient in the beginning of the period 1970-80 if the capacity of the teacher training institutes were increased and if the average class sizes in the middle department were increased. The shortage of middle department teachers trained for the upper department however, will remain for a longer period.

The methodology is graphically shown in diagram 1. The results are summarized in diagram 2-5.

Diagram 1. Graphical illustration of the used calculation model

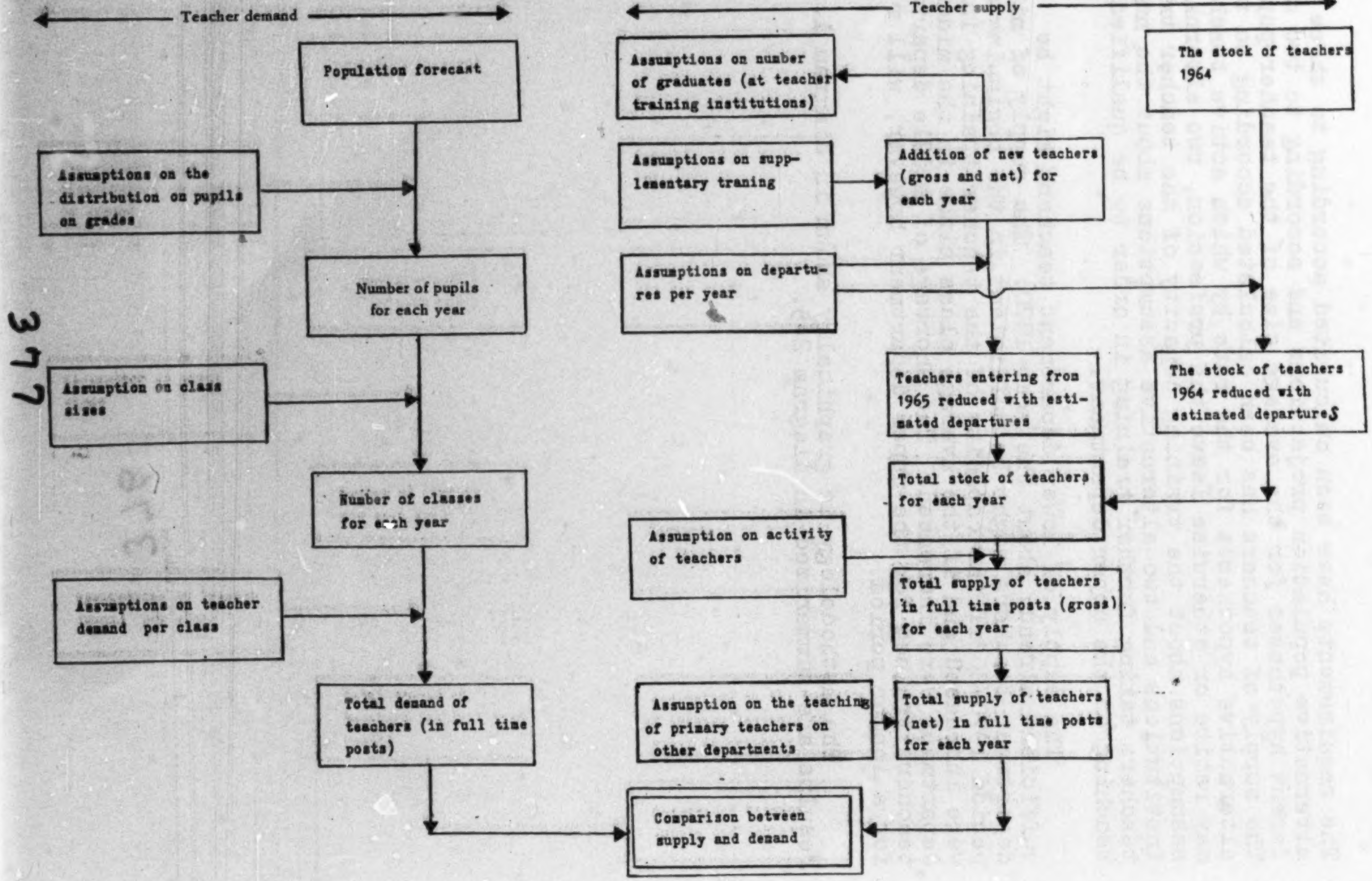

Teacher demand
Teacher supply
Population forecast
Assumptions on the distribution on pupils on grades
Number of pupils for each year
Assumption on class sizes
Number of classes for each year
Assumptions on teacher demand per class
Total demand of teachers (in full time posts)
Assumptions on number of graduates (at teacher training institutions)
Assumptions on supplementary traning
Assumptions on departures per year
Assumption on activity of teachers
Assumption on the teaching of primary teachers on other departments
Comparison between supply and demand
The stock of teachers 1964
Addition of new teachers (gross and net) for each year
Teachers entering from 1965 reduced with estimated departures
The stock of teachers 1964 reduced with estimated departures
Total stock of teachers for each year
Total supply of teachers in full time posts (gross) for each year
Total supply of teachers (net) in full time posts for each year

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Diagram 2

THE SUPPLY OF LOWER DEPARTMENT TEACHERS AS A PERCENTAGE OF THE DEMAND, ACCORDING TO DIFFERENT ALTERNATIVES 1964/65-1980/81

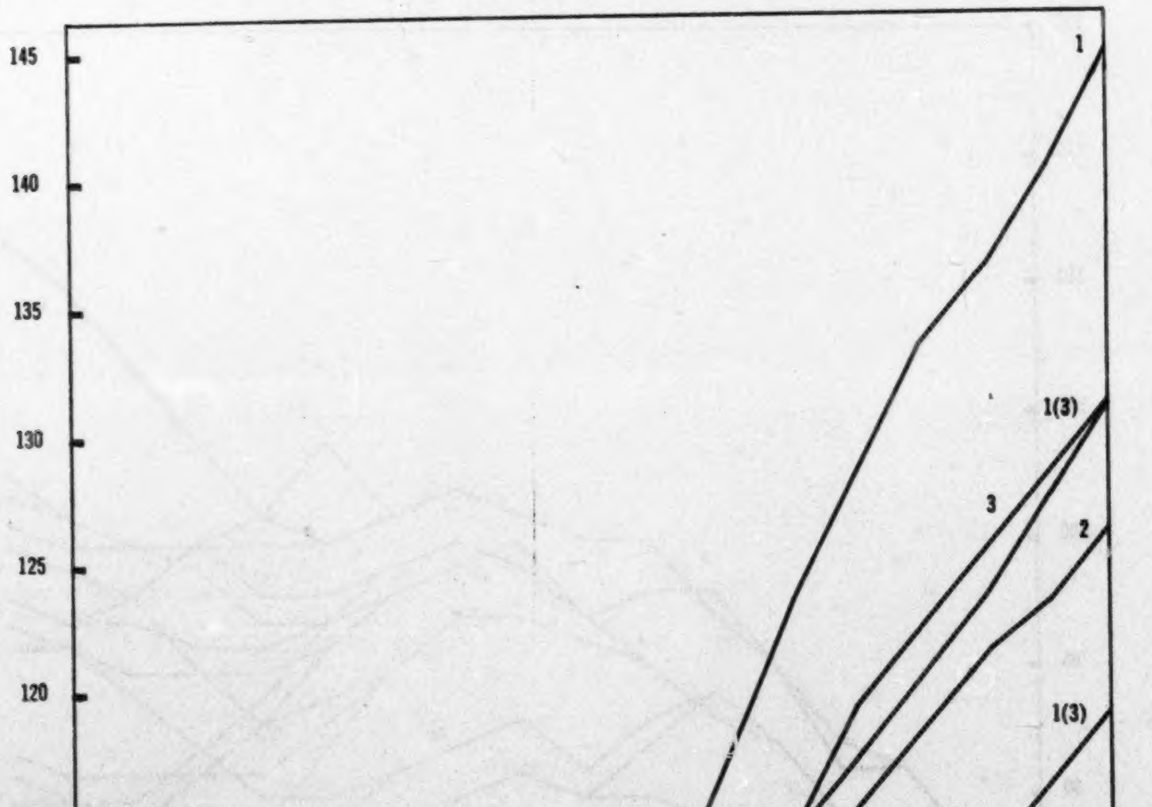
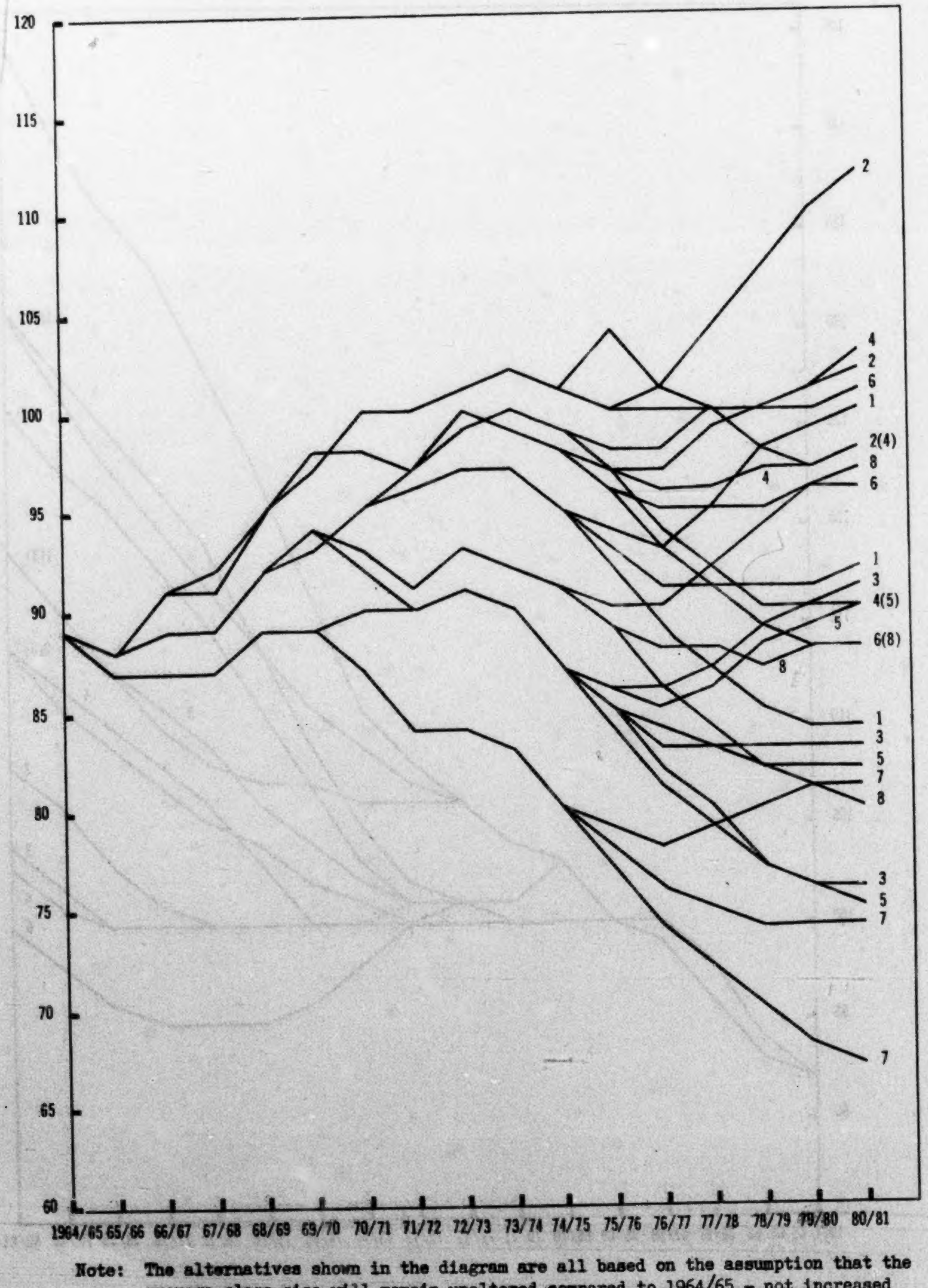


Diagram 3

THE SUPPLY OF MIDDLE DEPARTMENT TEACHERS AS A PERCENTAGE OF THE DEMAND ACCORDING TO DIFFERENT ALTERNATIVES 1964/65-1980/81



Note: The alternatives shown in the diagram are all based on the assumption that the average class size will remain unaltered compared to 1964/65 - not increased as intended

Diagram 4

THE SUPPLY OF SUPPLEMENTARY TRAINED MIDDLE DEPARTMENT TEACHERS AS A PERCENTAGE OF THE DEMAND ACCORDING TO DIFFERENT ALTERNATIVES 1964/65-1980/81

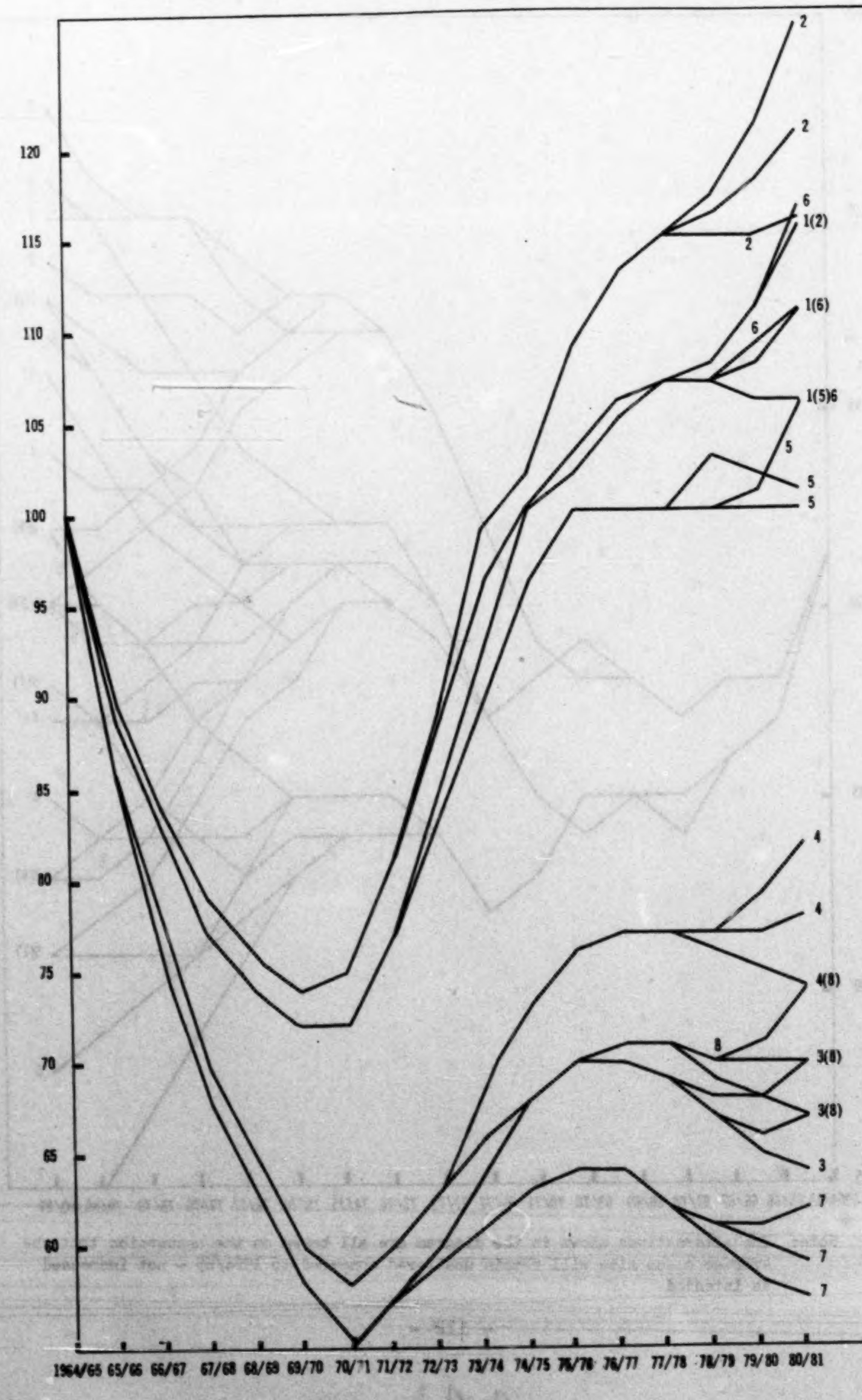


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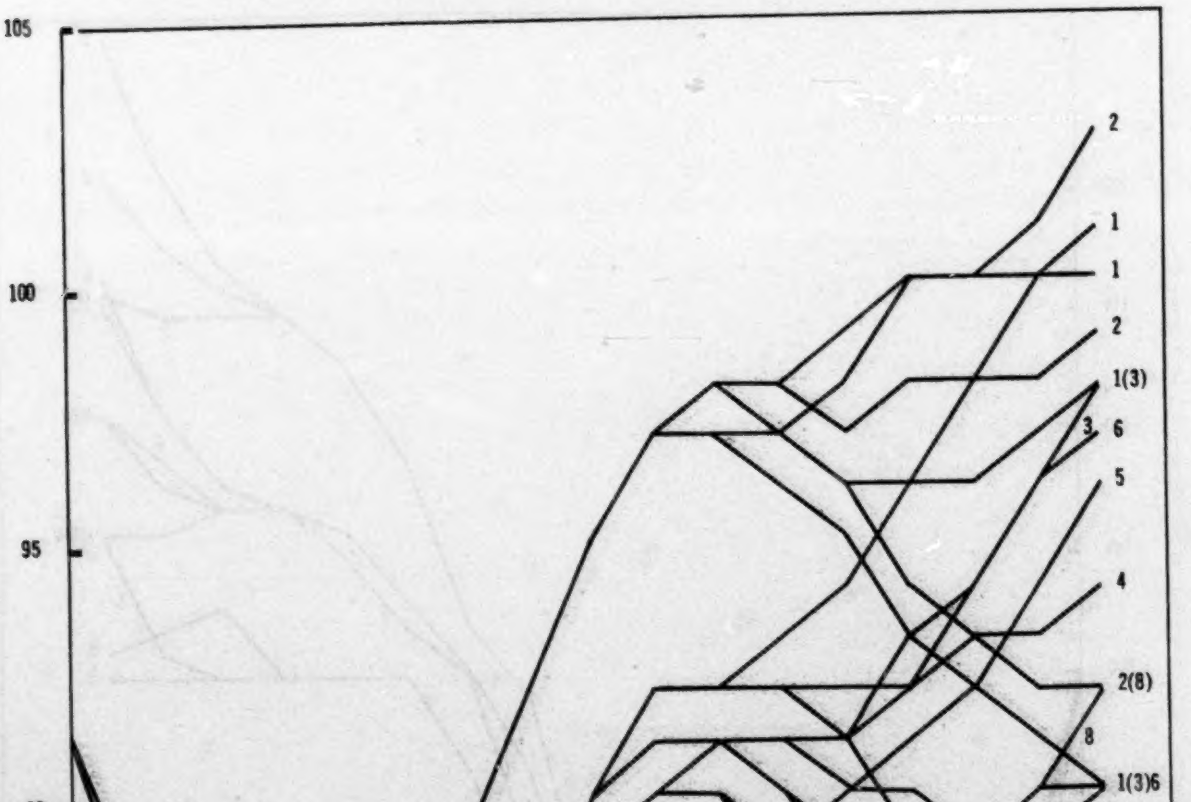
Diagram 5

THE SUPPLY OF MIDDLE DEPARTMENT TEACHERS AND SUPPLEMENTARY TRAINED MIDDLE DEPARTMENT TEACHERS CONSIDERED TOGETHER AS A PERCENTAGE OF THE DEMAND ACCORDING TO DIFFERENT ALTERNATIVES 1964/65-1980/81



Note: The alternatives shown in the diagram are all based on the assumption that the average class size will remain unaltered compared to 1964/65 - not increased as intended

ANNEX II

Statistical annex

Preface

Because of the rapid transformation of the Swedish educational system and the often altered educational statistics it is extremely difficult to produce consistent time series following the questionnaire which was established for this study. Thus the following tables should be interpreted very carefully.

It has not been possible to give figures for the enrolment and demand for teachers for the years 1975 and 1980, because the development depends on decisions that are not yet taken. There is no time series given for the number of teachers but only for teacher demand expressed in full-time posts, as the relation between demand and number of teachers cannot be assumed to be stable. The number of teachers is shown for 1963 and 1964 (1965 concerning vocational schools). These figures are taken from an analysis done by the Forecasting Institute of the Central Bureau of Statistics.

The demand for special subject teachers is not broken down into subjects. Instead the number of teachers are broken down into subject groups in table VIII and XIV(a) (age distribution table). The supply does of course not entirely comply with the demand.

In tables II and VIII age distribution is given by sex for most of the important teacher categories.

As there is no reliable empirical data on number of teachers leaving and entering the teaching profession - except some cohort data - no such figures are given. Concerning the number of teachers entering the teaching profession the data on intake to and graduates from teacher training institutions given in the text of the teacher study could give some indication (see tables V and XI(b) of this annex).

The tables below concern only the regular school system: i.e. Comprehensive school and the old compulsory schools, lower secondary school (including girl's schools), "gymnasium" and "fackskola". Thus most of the adult education, the teacher training system, People's High Schools and some military schools are excluded. Headmasters are also excluded. A summary of the teacher situation in 1963 and 1964 is given in the following table indicating the number of teachers and accomplished full-time posts at primary and secondary level (except vocational schools).

Synthetised table of the number of teachers and accomplished full-time posts at primary and secondary level

(except vocational schools)

1963 and 1964 Qualified for at least extra permanent posts	1963		1964	
	Number of teachers	Number of accomplished full-time posts	Number of teachers	Number of accomplished full-time posts
Primary level				
lower department teachers female(1)	15,979	14,467	16,648	14,895
middle department teachers male	9,973	9,704	9,410	8,911
female	10,105	9,064	9,942	8,679
Secondary level				
special subject teachers				
university graduates male	7,044	6,733	7,556	7,204
female	4,693	3,959	4,993	4,111
Others(2) male	1,831	1,775	2,115	2,096
female	1,213	1,043	1,260	1,070
Primary and secondary level				
Teachers in practical and artistic subjects male	3,570	3,540	3,942	3,664
female	5,464	4,481	5,613	4,341
Unqualified(3) male	5,154	3,515	5,566	3,924
female	6,091	3,814	6,730	4,577

Comment: The table is based on a special processing of the teacher statistics for 1963 and 1964 done by the Forecasting Institute of the Central Bureau of Statistics as a part of its teacher forecasting work. There is no double counting between the different types of schools. The material is not wholly reliable. There could be systematic differences between the years. Headmasters are excluded. They are around 1,700 both years. Teachers off duty are included.

(1) There are few male lower department teachers. They are included in the figures for the female ones.

(2) This group comprises supplementary trained middle department teachers, gymnasium engineers and economists qualified for special subjects teachers posts in economic and technical subjects and some minor other groups.

(3) Because of problems of definition this group comprises some teachers qualified for extra permanent positions.

A. Primary education

List of Tables

Table I (a)	Demand for primary teachers 1955-1970 expressed in full-time posts.
Table I (b)	Estimates of the shortages of teachers 1955-1965 at the primary level.
Table II	Qualified primary teachers by sex and age-groups in 1964 (lower and middle departments of the comprehensive school).
Table III	Enrolments and population of corresponding age in primary education (lower and middle departments of the new comprehensive school and all the old compulsory schools - "Folkskola" for the years 1950, 1955, 1960, 1965 and estimates for 1970, 1975, 1980.
Table IV	Number of full-time teachers entering the teaching profession at primary level, by origin by qualifications, by sex, for the period 1951 to 1962 and estimates for the period 1963 to 1970. (This table is not available)
Table V	Number of new entrants and graduates of teacher training institutions by type of training received from 1960 to 1968.
Table VI (a)	Number of full-time teachers leaving the teaching profession at primary level, by qualification, by sex for the period 1951 to 1962 and estimates for the period 1963 to 1970. (This table is not available)
(b)	Number of part-time teachers ... (This table is not available)

Table I (a)

Demand for primary teachers 1955-1970 expressed in full-time posts.

	1955	1960	1965	1970
Lower department teachers	13,100	14,200	16,100	16,000
Middle department teachers	21,000	20,300	18,900	16,700
Total	34,100	34,500	35,000	32,700

Notes: The demand is expressed in full-time posts i.e. number of hours divided by the teaching load. The estimates have mainly been done by special committees and the National Board of Education. They do not include headmasters. Estimates for different years are not entirely consistent. The development should be explained by quite a lot of factors beside the number of pupils. Regulations concerning the class sizes have been altered a few times, grade 3 has been moved from the middle department to the lower department, grade 7, 8 and 9 in the new comprehensive school is moved to the upper department.

Table I (b)

Estimates of the shortage of teachers 1955-1965 at the primary level

Primary teachers	1955	1960	1965
lower department	100	200	1,300
middle department	700	800	2,100
thereof lower department teachers	350	?	500

Note: The shortage is at the primary level defined as the number of persons teaching as primary teachers without required training. The estimates for the different years are not consistent and give only a rough estimate of the development.

Table II

Qualified primary teachers by sex and age-groups in 1964

(lower and middle departments of the comprehensive school)(1)

	Lower department			Middle department		
	M	F	M.F	M	F	M.F.
65 and over	1	221	222	295	97	392
60-64	-	977	977	909	812	1,721
55-59	-	1,624	1,624	1,003	1,007	2,010
50-54	2	822	824	620	643	1,263
45-49	1	429	430	476	465	941
40-44	1	1,018	1,019	684	509	1,193
35-39	-	2,370	2,370	1,620	1,312	2,932
30-34	4	2,992	2,996	1,933	2,177	4,110
25-29	10	2,861	2,871	1,361	1,869	3,230
24 and under	11	3,304	3,315	509	1,051	1,560
Unknown	-	-	-	-	-	-
Total	30	16,618	16,648	9,410	9,942	19,352

Note: (1) Teachers off duty included; among lower department teachers and middle department teachers are included those who teach in a higher department; thus, some lower department teachers teach in the middle department and some middle department teachers teach in the upper department.

Source: see "Comment" under the synthetised table given at the end of the Preface of the Annex II.

Table III

Enrolments and population of corresponding age in Primary Education (lower and middle departments of the new comprehensive school and all the old compulsory school) (folkskola) for the years 1950, 1955, 1960, 1965 and estimates for 1970, 1975, 1980

(in thousands)

Level and type of education enrolments population	PUBLIC					
	I		II		III = I + II	
Years	Lower department		Middle department		Primary Level	
	Enrolments(1)	Population(2)	Enrolments(1)	Population(2)	Enrolments(1)	Population(2)
Past						
1950	-	330	-	278	651	608
1955	-	379	-	381	805	760
1960	327	324	441	355	768	679
1965	318	318	349	319	667	637
Estimates for the future						
1970	322	320(3)	310	310(3)	632	630(3)
1975	-	354-408(3)	-	349-354(3)	-	703-762(3)
1980	-	370-448(3)	-	359-434(3)	-	729-882(3)

Notes: (1) For 1950 and 1955 it has not been possible to divide the enrolment into lower and middle departments. For 1960 and the following years the lower department is defined as grade 1-3 in the comprehensive school (grundskola) and old compulsory school (folkskola). The middle department is defined as grade 4-6 in the comprehensive school and grade 4-8 in the old compulsory school. The inclusion of the grades 7 and 8 in the old compulsory school explains the astonishing development.

(2) Age at the end of the year: lower department 7-9; middle department: 10-12; the age corresponds to the schools and levels in present educational system.

(3) The estimates for 1970 to 1980 are taken from a population forecast published by the Central Bureau of Statistics 1965. Three alternatives were calculated based on different assumptions concerning fertility and immigration. For 1975 and 1980, the maximum and minimum alternatives are shown.

Table V

Number of new entrants and graduates of teacher training institutions by type of training received from 1960/61 to 1967/68

	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68
I. Lower department teachers								
1. New entrants	1,080	1,152	1,272	888	826	1,032	1,440	1,296
2. Graduates	1,065	1,069	541	1,222	1,048	995	870(1)	1,222(1)
II. Middle department teachers								
1. New entrants	576	720	792	888	960	1,200	1,344	1,416
2. Graduates	658	645	792	709	867	1,021	1,094(1)	1,228(1)

(1) The graduate figures for 1966/67 and I967/68 are estimates

Sources : Educational policy and planning, Sweden, O.E.C.D. - I967

B - Secondary General Education
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Table VII (a) Demand for special subject teachers in theoretical subjects 1955-1970.

Table VII (b) Estimates of the shortage of teachers (1955-1966).

Table VIII Secondary school teachers by sex, age-groups and different subject groups according to the content of their degree in 1964 (upper department of the comprehensive school, lower secondary schools, gymnasium, "fackskola").

Table IX Enrolment and population of corresponding age in general secondary education for the years 1950, 1955, 1960, 1965 and estimates for 1970, 1975 and 1980.

Table X Number of full-time teachers entering the profession at general secondary level by qualifications, by sex and by broad categories of teaching subjects for the period 1951-1962 and estimates for the period 1963-1970. (This table is not available)

Table XI (a) Number of new entrants, enrolments and graduates at university level by broad categories of subjects for 1955, 1960, 1964 and estimates for 1970.

Table XI (b) Number of future theoretical subject teachers at secondary level admitted into practical training institutions (1953-1962).

Table XII (a) Number of full-time teachers leaving the teaching profession at general secondary level by qualifications, by sex and by broad categories of teaching subjects, for the period 1951-1962 and estimates for the period 1963-1970. (This table is not available)

Table XII (b) Number of part-time teachers ... (This table is not available)

Table VII (a)

Demand for special subject teachers in theoretical subjects 1955-1970.

	1955	1960	1965	1970
University graduates	8,300	12,500	15,900	16,200
(including Fackskola)(1)	-	-	(16,530)	(19,300)
Comprehensive school	200	1,500	6,100	9,000
Lower secondary schools		6,900	3,500	300
Gymnasium	8,100	4,100	6,300	6,900
Supplementary trained middle department teachers				
Comprehensive school	200	1,100	4,300	6,400
Total	8,500	13,600	20,200	22,600
(Including Fackskola)(1)	-	-	(20,830)	(25,700)

Notes: The demand is expressed in full-time posts i.e. number of hours taught divided by the teaching load. The estimates are mainly done by special committees and the National Board of Education. Estimates for different years are not necessarily consistent. Headmasters are excluded.

(1) See table XIII (a)

Table VII (b)

Estimates of the shortage of teachers 1955-1966.(1)

Secondary teachers	1955	1960	1966
University graduates in general theoretical subjects (except technical and economical subjects).	1,500	3,000	2,600

Note (1) - On the secondary level the shortage is defined as the number of hours taught by persons without a university degree divided by the teaching load. The competence in the specific subject is not taken into account. The estimate for 1955 is not consistent with the estimates for 1960 and 1966. The "Fackskola" is included in 1966 (Vocational schools are not included in this table).

Table VIII

Secondary schools teachers by sex, age-group and different subject groups according to the content of their degree in 1964 (upper department of the comprehensive school, lower secondary schools, gymnasium, "Fackskola" (1)

	Supplementary trained middle department teachers(2)			University graduates in "sciences"(3)			University graduates in "humanities"(4)			University graduates in "theoretical technical education"(5)			University graduates in "other subjects" (6)		
	M	F	M.F	M	F	M.F	M	F	M.F	M	F	M.F	M	F	M.F
65 and over	1	-	1	56	4	60	78	22	100	29	-	29	7	0	7
60-64	23	23	46	82	24	106	224	111	335	34	1	35	8	7	15
55-59	41	40	81	147	47	194	323	238	561	44	-	44	32	11	43
50-54	55	32	87	108	36	144	401	301	702	76	4	80	16	14	30
45-49	77	48	125	144	43	187	426	380	806	107	9	116	27	8	35
40-44	232	54	286	246	117	363	501	402	903	149	13	162	25	7	32
35-39	500	167	667	401	117	518	772	460	1,232	156	15	171	21	8	29
30-34	627	179	806	406	164	570	1,003	831	1,834	166	5	171	23	17	40
25-29	278	78	356	387	208	595	668	1,069	1,737	115	8	123	22	50	72
24 and under	10	10	20	67	66	133	47	165	212	11	3	14	1	8	9
Unknown	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	1,844	631	2,475	2,044	826	2,870	4,443	3,979	8,422	887	58	945	182	130	312

Source: See "comment" under the synthetised table given at the end of the "Preface" of the annex II.

Notes:
(1) See table XIV for public vocational school teachers; teachers off duty are included.
(2) These teachers give courses in the upper department of the comprehensive school.
(3) University graduates in mathematics, physics, biology, geography and chemistry.
(4) University graduates in economics, statistics, political science and history, psychology and pedagogy, modern languages, literary history, history, classical languages, other subjects in the philosophical faculties.
(5) University graduates in engineering and business economics.
(6) University graduates in christianity and other subjects.

Table IX

Enrolments and population of corresponding age in General Secondary Education for the years 1950, 1955, 1960, 1965 and estimates for 1970, 1975, 1980.

in thousands

	Public										
	I				II					III	
	Lower secondary				Gymnasium					Total (I + II)	
	Enrolments (1)			Population (2)	Enrolments (3)				Population (4)	Enrolments	Population (6)
	a	b	Total		a	b	c	Total			
Past											
1950	-	115	115	254	20	4	2	26	247	141	501
1955	11	151	162	301	31	4	3	38	274	200	575
1960	161	69	230	385	55	7	3	65	365	295	750
1965	211	82	293	330	73	17	14	104	372	397	702
Estimates for the future											
1970	315	7	322	320(5)	-	-	-	109	323(5)	431	643
1975	-	-	-	312(5)	-	-	-	-	316-318(5)	-	628-630
1980	-	-	-	357-392(5)	-	-	-	-	336-341(5)	-	693-733

Notes: (1) The upper department of the comprehensive school (a) replaces gradually the old lower secondary schools and girls schools. (b) The upper department comprises grade 7-9 but lower secondary schools and girls schools comprised also grade 4-5 and 10-11 to a certain extent (especially for the earlier years).

(2) Age at the end of the year: 13-15 (upper department), the age corresponds to the schools and levels in present educational system.

(3) Gymnasium (a) academic gymnasium/general streams; (b) technical gymnasium/technical streams; (c) commercial gymnasium/economic streams. The commercial gymnasium comprised two year courses up to 1961 and three year courses from 1961. The old technical and academic gymnasium comprised three year courses. The distribution of pupils in the new gymnasium and fackskola depends mainly on the free choices of the pupils. The distribution in grade 1 of the new gymnasium and fackskola 1966 was the following:

Gymnasium	%
general streams	66
technical streams	14
economic streams	20

Fackskola	%
social streams	35
technical streams	40
economic streams	25

According to the intentions in the 1964 decision the technical and economic streams in the gymnasium should in the long run each cater for nearly one quarter of the total enrolment in grade 1. The technical stream in the new gymnasium is a four year course the other ones three year courses. For the enrolments in the "Fackskola" see table XV.

(4) Age at the end of the year: 16-18; the age corresponds to the schools and levels in present educational system.

(5) The estimates for 1970 to 1980 are taken from a population forecast published by the Central Bureau of Statistics 1965. Three alternatives were calculated based on different assumptions concerning fertility and immigration. For 1975 and 1980 the maximum and minimum alternatives are shown.

(6) 13-18.

Table XI (a)

Number of new entrants, enrolments and graduates at university level(3) by broad categories of subjects for 1955, 1960, 1964 and estimates for 1970

	Total enrolment	New entrants	Number of degrees granted	
			Basic degrees	Post-graduate degrees
1955				
Liberal arts and social sciences (1)	10,022	-	1,109	139
Natural sciences	2,618	-	335	99
Technology	3,399	-	531	45
Other	7,337	-	1,161	97
Total	23,376	-	3,136	380
1960				
Liberal arts and social sciences(1)	16,662	3,760	1,800	159
Natural sciences	5,248	1,749	471	137
Technology	5,099	779	634	68
Other	9,590	1.295 (2)	1,290	133
Total	36,599	7.583 (2)	4,195	497
1964				
Liberal Arts and social sciences(1)	30,567	8,424	2,398	216
Natural sciences	9,614	2,410	896	207
Technology	7,358	1.434	897	102
Other	12,808	1,732 (2)	1,549	175
Total	60,347	14,000 (2)	5,740	700
1970				
Liberal Arts and social sciences(1)	(33,100)(4)	-	-	-
Natural sciences	(21,600)(4)	-	-	-
Technology	(13,800)(4)	-	-	-
Other(2)	(18,100)(4)	-	-	-
Total(2)	86,600	-	-	-

Notes:
(1) Including economics.
(2) Excluding social work and public administration.
(3) This table does not include students at non-university higher education; they were 9,070 in 1960/1961 and 15,100 in 1965/66.
(4) Because of the free admission to the faculties of liberal arts, social sciences and natural sciences, the breakdown for 1970 is of course very uncertain.

Sources : Educational Policy and planning - Sweden - O.E.C.D. Paris 1967, (Tables 21, 24, 25 and 26).

Table XI (b)

Number of future theoretical subject teachers at secondary level admitted into practical training institutions (1955-1962 and 1966)

	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1966
Colleges of education	-	-	-	29	76	68	63	87	123	139	1,582
Special teacher training centres	210	227	262	291	359	417	422	446	464	535	683
Total	-	-	-	320	435	485	485	533	587	674	2,265

Annex II

C - Vocational and technical education at secondary level.

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Table XIII (a)

Demand for special subject teachers in theoretical subjects 1965-1970 in the "Fackskola"

	1965	1970
"Fackskola"	630	3,100

Note: The demand is expressed in full-time posts i.e. number of hours taught divided by the teaching load. The estimates are mainly done by special committees and the National Board of Education. Estimates for different years are not necessarily consistent. Headmasters are excluded.

Table XIII (b)

Demand for teachers at the public vocational schools autumn 1965.

	Theoretical subjects	Practical and artistic subjects	Vocational subjects	Total
Number of full-time posts (Hours teaching load)	2,900	100	4,000	7,000

Note: The estimates are based on statistics published by the Central Bureau of Statistics. Unlike the table on enrolment it does not include private schools. The distribution of demand into different categories is uncertain. Because of lack of all teacher statistics it is not possible to make estimates for previous years. The total demand is estimated to remain fairly stable up to 1967.

Table XIII (c)

Demand (1) for teachers in practical and artistic subjects 1960-1970 at the primary and secondary level (except vocational schools)

	1960	1965	1970
Total	9,000(2)	10,200	10,900
Thereof : Comprehensive school	-	8,400(3)	9,900(4)
Old lower secondary schools and girls schools	-	1,100	100
Fackskola	-	100	300
Gymnasium	-	600	600

Notes : (1) The total demand is expressed in full-time posts i.e. number of hours taught divided by the teaching load. The estimate for 1960 is uncertain. The estimates for 1965 and 1970 are done by the National Board of Education.

(2) A breakdown for 1960 is impossible

(3) Among which 850 vocational teachers

(4) Among which 1,000 vocational teachers

Table XIV

Number of teachers in public vocational schools(1) (1965) by age groups and broad categories of teaching

(a) Teachers with permanent, extra permanent or extra position

Age groups	Teachers in theoretical subjects	Teachers in practical or artistic subjects	Teachers in vocational subjects
65 and over	8	-	11
1960-1964	39	1	91
1955-1959	62	4	236
1950-1954	94	3	312
1945-1949	143	5	443
1940-1944	245	5	577
1935-1939	260	8	655
1930-1934	346	22	552
29 and under	413	28	602
Unknown age	18	1	10
Total	1,628	77	3,489

(b) Teachers without position (mostly less than half time teaching)

	Teachers in theoretical subjects	Teachers in practical or artistic subjects	Teachers in vocational subjects
	4,605	558	3,505

Note: There is probably some double counting between table 5.1 and 5.2. Headmasters are included in this table.

(1) Teachers in "Fackskola" are included in table VIII.

Table XV

Enrolments and population of relevant age in the Fackskola and in the Vocational schools for the years 1950, 1955, 1960, 1965, and estimates for 1970, 1975, 1980.

in thousands

	Public						
	"Fackskola"(1)					Vocational schools	
	Enrolments				Population of relevant age	Enrolments	
	Social stream	Technical stream	Economic stream	Total		Full-time courses of at least 5 months	Part-time courses and courses shorter than 5 months
Past							
1950	-	-	-	-	247	13	75
1955	-	-	-	-	274	19	93
1960	-	-	-	-	365	49	110
1965	3	4	3	10	372	74	113
Estimates for the future							
1970	-	-	-	41	323(3)	79	100
1975	-	-	-	-	316-318(3)	-	-
1980	-	-	-	-	336-341(3)	-	-

(1) See note (3) table IX.

(2) Age at the end of the year 16-18 (Fáckskola-vocational schools), the age corresponds to the schools and levels in present educational system.

(3) The estimates for 1970 to 1980 are taken from a population forecast published by the Central Bureau of Statistics 1965. Three alternatives were calculated based on different assumptions concerning fertility and immigration. For 1975 and 1980 the maximum and minimum alternatives are shown.

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